

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

APRIL 1, 1939



Cornus Florida

**Propagation of Lilacs on Own Roots
Speculating in Scrophulariads
Trade Exhibits at Flower Shows
Nursery Spray Program**

AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

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EXPECT SPRING RISE.

The bureau of agricultural economics, which won notice by its prediction of the 1937 recession, looks for moderate improvement in the domestic demand for farm products this spring and summer. The bureau says that industrial production now appears to be more or less in balance with prevailing consumption, and that any rise of more than seasonal nature during coming months must represent either a period of inventory accumulation, such as occurred in 1936-37, or a period of rising consumption of industrial products.

"It is unlikely," the bureau says in its current report, "that a period of heavy speculative activity and building up of stocks of industrial raw materials and finished goods will be encountered soon; any additional rise in the level of industrial activity, therefore, will have to come from a rise in the level of consumption."

The bureau looks for a period of relatively stable commodity prices, labor conditions and of other factors affecting forward buying, but says that "the anticipated further increase in building operations this spring and summer, together with some additional increase in government expenditures, should furnish enough stimulus to bring about a somewhat greater than seasonal rise in activity during the spring and summer."

No marked increase is expected in total volume of industrial production, and for the longer term it is stated that "the critical time will come when the impetus furnished by building operations and government spending

is reduced. The principal question then arising, the bureau says, is whether there will be a sufficient revival of business spending for capital investment to take up the slack.

"The failure of such an increase in private investment to occur might lead," the bureau says, "to another recession in the latter part of this year or the first part of 1940. On the other hand, if private expenditures for producers' or capital goods gradually increase, the anticipated spring and summer rise could be the forerunner of a period of gradual improvement extending into 1940 at least."

CORNUS FLORIDA.

Cornus florida, the flowering dogwood, is one of the most beautiful and widely known of the dogwoods. It is considered by many as being without equal among the showy, early spring-flowering trees. It is native to the woods from Massachusetts to Florida and westward to Texas.

The tree produces a low, spreading head with the branches in tiers and usually grows to fifteen feet, seldom reaching over thirty feet. The cover picture is not typical of this dogwood in that it is usually a more perfectly formed and compact-growing tree. The tiny, yellowish flowers are borne in profusion in early spring. Each flower is surrounded by four large, white bracts, which are often mistaken for the flowers. It is these bracts which produce the mass of white in early spring that makes C. florida such a popular specimen and landscape tree. In the variety rubra the bracts are pink or rose-colored. The leaves are oval and three to six inches long, ending in an abrupt point at the tip.

In autumn the brilliant, tiny red fruits, which ripen in September and October, together with the scarlet twigs, lend a blaze of scarlet color to the landscape that is equaled by few trees.

Besides its use in the landscape scene, the flowering dogwood has found a large commercial value. Its wood is used in the manufacture of small wheel hubs, engraving blocks and heads for golf clubs. In Civil war days the bark, which is deeply fur-

rowed and plated, was used as a substitute for quinine.

In its natural habitat the dogwood thrives in a low, moist, fertile soil, but the Morton Arboretum finds that in the northern limits of its range it grows best on gravelly slopes which are covered with a thick layer of decaying leaves. It has also been found that when it is planted in a rich prairie soil it will make a strong growth and will continue to do so until late autumn. Early frosts will kill all the unripened wood, and during the next year a still stronger growth is likely to follow. In the autumn this growth will suffer such severe frost injury that the entire tree will die within a year.

Large plants of the flowering dogwood are difficult to transplant, and nurserymen should sell and transplant trees with a large ball of burlapped soil.

Cornus florida will grow from seeds, but a large percentage of them are usually infertile. The seeds germinate after being submitted to a temperature of 41 degrees for a period of 120 to 130 days.

The trees are highly susceptible to attacks of borers which work under the bark until the tree is girdled. These borers, when discovered, should be dug out of the tree before they cause its destruction.

FIGHT JAPANESE BEETLE.

The general assembly of the state of North Carolina has made \$30,000 available for soil poisoning for the suppression of the Japanese beetle, according to C. H. Brannon, state entomologist.

This sum will be used for work in the cities and towns of Durham, Winston-Salem, High Point, Greensboro, Sanford, Charlotte, Wilmington, Elizabeth City, East Spencer, Spencer and Raleigh.

A total of 242 acres will be poisoned this year, and this will be followed by a biennial poisoning program in the next two years. North Carolina in taking this action has saved itself from the federal quarantine for the present. In addition to this, a large number of Japanese beetle grubs will be killed in the heaviest infested territory.

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No. 7

Propagation of Lilacs on Own Roots

Use of Growth-Promoting Substances in Rooting Cuttings of Varieties of Syringa Vulgaris—By H. Kirkpatrick, Jr., of Boyce Thompson Institute

Because of the great difficulty of rooting special varieties of *Syringa vulgaris* from cuttings, these varieties are generally propagated by budding or grafting on seedling stocks of privet, *Ligustrum ovalifolium*, or on stocks of the common lilac, *Syringa vulgaris*. Other species of lilacs are usually propagated from leafy cuttings taken after the new growth becomes hardened. Since the growth performance of all species of lilacs is generally better on own-rooted plants than on grafted or budded plants, it is a matter of importance to perfect methods for obtaining lilacs on their own roots. Recent reports of results obtained with root-forming substances such as indolebutyric, indoleacetic and naphthaleneacetic acids have indicated that lilac cuttings, as well as those of other genera, might respond favorably to treatment with these special root-forming chemicals. Results of treating lilac cuttings with indolebutyric acid are reported in the present paper.

Cuttings were taken as soon as the new growth had reached a length of about four inches and thereafter at frequent intervals until the shoots had completed growth and had become hardened. Shoots selected for cuttings were of the current season's growth and were removed from the plant by cutting through the basal rings. The following four types of cuttings were used: Complete shoots, long shoots cut in half, making a tip cutting and a basal cutting, and complete shoots with the soft tip portion of the stem removed. In varieties where the remaining leaves were large and unwieldy they were trimmed. Indolebutyric acid was used in the fol-

lowing concentrations: 0, 10, 20, 40 and 60 milligrams of the growth substance per liter (approximately one quart) of water, which are referred to hereafter as units. A control lot treated with tap water was included in each test. All treatments were of twenty-four hours' duration and they occurred under conditions to ensure against wilting.

After treatment the cuttings were planted in a paint-shaded greenhouse which was not provided with any heating equipment. The rooting medium used was a mixture of two parts builders' sand and one part German peat moss, by volume. Two types of shading were employed in the greenhouse. In one instance cheesecloth was laid directly on the cuttings; in

another a muslin case about two feet high was built over the bench. The cuttings were planted on a slant rather than upright, so that the leaves lay flat on or close to the surface of the medium. This position lessened the air circulation about the leaves and tended to raise the humidity around them, thus keeping them in a better condition than when planted in an upright position.

Cuttings taken before the last week in April were too soft and succulent to remain in good condition for as long as two weeks. Good results were obtained, however, with cuttings taken during the period and including the last week in April up to the middle of May. Those taken after May 15 required a longer time to root and



Figure 1. *Syringa vulgaris* var. Professor Sargent cuttings. Left—cuttings not treated. Right—cuttings treated with a 60-unit solution of indolebutyric acid, photograph taken after 33 days in the rooting medium.

gave a lower percentage of rooted cuttings. All types of cuttings other than the complete shoots failed to root.

In all varieties, including the vulgaris varieties, concentration requirements varied according to the time of year the cuttings were made. Young actively growing material taken very early required a stronger solution than cuttings taken one or two weeks later (Tables I and II). Lilacs grow so rapidly in the early spring that one or two weeks, and in some cases a few days, make a great deal of difference in the condition of the new shoots, and this is probably the reason for the variation in concentrations required.

No noticeable differences were found in the rooting response of the cuttings treated under the different types of shading. In the muslin case it was a little easier to control the watering than on the open bench under cheesecloth. However, it is safe to say that any type of shading or planting conditions which tend to keep the leaves green and turgid may be used.

In species other than the vulgaris varieties either a 60-unit or a 40-unit

solution for twenty-four hours proved to be the most effective (Table III). The treated cuttings had large masses of long roots, whereas the cuttings not treated showed little or no rooting. In no case were there more than twenty-five per cent of the untreated cuttings rooted. Various concentrations were required for the different vulgaris varieties (Table IV). There was no rooting in any of the untreated cuttings. The treated cuttings had large root systems which appeared to be normal in every respect (Figs. 1 and 2). Similarly treated cuttings rooted during the spring of 1937 made a vigorous growth during the spring and early summer of 1938.

For such varieties as may be found not to respond to treatment a simple method of grafting was devised. Dormant scions with three or four buds were prepared. California privet (*Ligustrum ovalifolium* Hassk.) cuttings about two inches in length were used as a stock. The privet cuttings were treated for twenty-four hours in a 40-unit solution of indolebutyric acid. Then the scions were saddle-

grafted onto the stock, the scions being dipped in an 80-unit solution before the graft was made. The prepared grafts were then planted in the rooting medium, taking care to place the graft union below the surface of the medium. The privet nurse piece rooted readily and served as a "nurse root" to the scion until it developed its own roots. All buds were removed from the privet stock to prevent suckering. Only one graft of all those tried failed to take. Growth substances stimulate callus formation on dormant cuttings so that dipping the scion hastened the union between stock and scion.

Another interesting method of rooting was found in the course of experimenting on dormant Persian lilac (*Syringa persica* L.) cuttings. These cuttings were treated and placed in the rooting medium. No rooting occurred, but top buds began growing and developed shoots one to two inches long. These young shoots were removed from the old wood and treated with a 20-unit solution of indolebutyric acid for twenty-four hours before planting in the rooting medium. In three weeks' time they were all rooted and ready for potting.

Considering the results of all the tests, it is apparent that growth substances, applied carefully and correctly, will increase and hasten rooting of lilacs. They appear to be of particular value in the propagation of *Syringa vulgaris* varieties both in rooting and in grafting by the nurse-piece method. The use of special root-forming substances should prove both economical and profitable.

TABLE I
Time of Year to Take Cuttings of *Syringa vulgaris* var. Professor Sargent and Best Strength of Chemical to Use

| Date treated | Date examined | Days in rooting medium | Best conc. in units* | Per cent rooted |
|--------------|---------------|------------------------|----------------------|-----------------|
| April 27 | June 30 | 64 | 60 | 100 |
| May 9 | July 7 | 59 | 20 | 75 |
| May 16 | July 13 | 58 | 40 | 75 |

*Units = milligrams of growth substance per liter (approximately 1 quart) of water.

TABLE II
Time of Year to Take Cuttings of *Syringa vulgaris* var. Perle von Teltow and Best Strength of Chemical to Use

| Date treated | Date examined | Days in rooting medium | Best conc. in units* | Per cent rooted |
|--------------|---------------|------------------------|----------------------|-----------------|
| May 9 | July 21 | 77 | 40 | 75 |
| May 16 | July 13 | 58 | 20 | 100 |

*See footnote *Table I.

TABLE III
Response of Cuttings of *Syringa* Spp. to a 40-unit Solution of Indolebutyric Acid

| Species | Date treated | Date examined | Per cent rooted | |
|-------------------------------------|--------------|---------------|-----------------|---------|
| | | | Not treated | Treated |
| <i>S. emodi</i> Wall. | April 27 | May 31 | 14 | 75 |
| <i>S. henryi</i> Lutece Schneid. | May 16 | June 10 | 25 | 100 |
| <i>S. josikaea</i> Jacq. | May 13 | June 25 | 25 | 75 |
| <i>S. persica</i> L. | May 13 | June 25 | 0 | 100 |
| <i>S. tomentella</i> Bur. & Franch. | April 27 | May 24 | 20 | 100 |
| <i>S. villosa</i> Vahl. | May 11 | June 5 | 0 | 75 |

TABLE IV
Response of *Syringa vulgaris* Varieties Showing No Rooting Without Treatment; With Treatment, Rooting as Indicated Below

| Variety | Date treated | Date examined | Best conc. in units* | Per cent rooted |
|----------------------|--------------|---------------|----------------------|-----------------|
| Adelaide Dunbar | May 11 | July 13 | 60 | 75 |
| Antoine Buckner | May 11 | July 13 | 20 | 75 |
| Arthur Wm. Paul | May 16 | July 13 | 40 | 50 |
| Decaisne | May 9 | July 7 | 60 | 100 |
| Mme. Casimir Perier | May 11 | June 30 | 60 | 50 |
| Mme. Florent Stepman | May 3 | July 7 | 60 | 100 |
| Mont Blanc | May 3 | July 7 | 20 | 50 |
| Perle von Teltow | May 16 | July 13 | 20 | 100 |
| Pres. Poincare | May 3 | July 7 | 40 | 50 |
| Duc de Massa | April 29 | July 21 | 40 | 75 |

*See footnote *Table I.



Figure 2. *Syringa vulgaris* var. Duc de Massa cutting showing root development 53 days after treatment with a 60-unit solution of indolebutyric acid.

Speculating on Scrophulariads

First in a Series of Articles on Scrophulariads Discusses Foxgloves, Handsome but Sometimes Poisonous Herbs, Popular with Gardeners — By C. W. Wood

Recently, while going over some old correspondence, I was struck by the number of inquiries complaining about the poor behavior of foxgloves and the thought came to me that, judging from the poor specimens one often sees on the market, perhaps a few thoughts on the subject might be of interest at this time. When the time came to set them down on paper, however, it was readily apparent that it would take more than a few notes on foxgloves to fill the space in one issue, and so the impulse came to treat the entire family of scrophulariaceæ in the next few numbers. The plan is not so ambitious as to cover all the known members of the family, nor is my knowledge sufficiently broad that I hope to have the final say on what is discussed, but I hope to be able to smooth the way in part of the rough places and perhaps to inspire others to a full appreciation of a most interesting and ornamental plant family.

Scrophulariaceæ is a large group made up of 179 genera and more than 2,500 species, distributed quite generally throughout the world. It contains a few plants of economic importance to the medical profession, such as the sedative-narcotic digitalis and the tropical *Scoparia dulcis*, which is used as a febrifuge, but its greatest interest to the nurseryman lies in the large number of ornamental plants which are embraced in the name scrophulariaceæ. The latter comes from the genus *scrophularia*, a reputed remedy for scrofula. Botanists have divided the family into a number of tribes, though that fact is of little interest to plant growers and will not be stressed in the present account, except that the divisions will be followed by trying to present each tribe in a single issue. With that thought in mind we are ready to consider the digitalis tribe.

That the foxglove has long been in gardens is repeatedly shown by the literature of the ancients, who maintained that the plant typified insincerity "because of the invidious poison which lurks within its bright blossoms," as one put it. Even though it has been grown for years (I am now speaking of the common foxgloves

of gardens), many modern gardeners and some growers do not appreciate the fact that it cannot be handled like ordinary biennials if supremely well done plants are to be expected. Most biennials can be sown in June or July, some even in August and September, and will still give good results, but not so in the case of foxgloves.

The latter should be started into growth in May, preferably the first part of the month in the north, to get the large root and ample clump of leaves necessary to support several imposing spires of massive flowers. No one wants the puny efforts usually on parade after the former are once known. Here in northern Michigan there is some trouble in keeping foxgloves over winter, especially in snowless winters or in wind-swept situations, and I suppose the same conditions prevail on the borderland between the north and the south, where alternate freezing and thawing is a part of the cold season. Mulching of the plants is the solution, of course, but judgment must be used to see that soggy material does not mat down over the plants, or heavy losses will surely result. Coarse litter, such as marsh hay, lightly applied and kept in place by a few branches is usually sufficient.

The species usually meant when foxglove is mentioned is *Digitalis purpurea*, a common plant in dry places throughout much of western and central Europe as far north as the Scandinavian countries. Its occurrence so far north would indicate hardiness, and that it has, if its need for good drainage is taken into consideration. If a mixture is desired, perhaps nothing better is available today than *The Shirley*, a selection from the hands of the late Rev. Wilks, which may attain the stately stature of five or six feet under high culture, though its normal height is not more than half of that, with large flowers in a wide range of colors. Growers should remember, though, that the needs of many modern gardens which maintain color schemes call for few plants of mixed colors. Fortunately, separate colors are now available, including

white, pink, yellow and purple, among others. I have lately found one, called *Lutz Hybrid*, of an attractive salmon-pink shade. In addition to *D. purpurea*, selected strains and hybrids, there are several other foxgloves of merit.

Of these I think *D. dubia* is my choice, though it is quite unlike one's ordinary opinion of what foxglove should be. First of all, its height of a foot or less is disconcerting, and its silvery leaves are quite unlike those of other members of the genus. However, when it hangs out its large, soft pink bells during June and July one has to concede that it is really a foxglove and one of the most charming of the lot. Unfortunately, we of the north cannot enjoy it without more fuss and bother than the average gardener is prepared to give his plants, because, coming from the Balearic islands, it is not able to stand our winters. I have tried to keep it over winter under a thick dry mulch, but it seems not able to take it; however, it does well in frames from which low temperatures can be excluded. South of the Ohio it should do well and become popular among the keen gardeners of that region. Do not confuse it with *D. ambigua*, however, as some seedsmen have, for the latter is a 3-foot perennial from western Asia, with yellow gloves, often with brownish spots.

There are at least twenty-five distinct species of foxgloves throughout Europe and western and central Asia, some of them apparently not in commerce, though several out-of-ordinary ones are readily available in seeds. Of the latter only two or three need be mentioned now. The southern European, *D. ferruginea*, is a splendid thing, where it is hardy, growing up to four feet in height and producing its purple-spotted yellow bells at the usual foxglove time. Bailey speaks of it as rusty red, but I have not seen that color in its flowers, except as they reach maturity. A species from southeastern Europe, including Greece and the Danube basin, according to the floras, is aptly named *D. lanata*, because of its silver-haired leaves. That tuft of downy leaves makes it hard

to keep unless the drainage is perfect, but the results, when it displays its brown-mottled white flowers on 2-foot stems in July and August, are worth the effort. It is said to vary not a little in flower color, but my plants were quite consistent as noted above.

It is apparent now that the available space will not even accommodate all the digitalis tribe; so two or three minor genera will be used to fill the little room left.

The liver balsam, *Erinus alpinus*, is not used as much as it could well be for the good of American gardens. It has a reputation here in northern Michigan of being rather tender, but I have found that not true, provided it is given perfect drainage. Put it in a perpendicular wall, or a sharp slope in a gritty soil, and it should give no trouble in regard to hardiness to cold. That opinion is based on experiences in a country where one is usually assured of an abundant snow blanket and may have to be modified in snowless sections. Experiences here teach me that it suffers most in late spring, during the period of alternate freezing and thawing, and I have learned to throw a little coarse litter over the plants as soon as the snow leaves. It grows readily from seeds, usually self-sowing in my garden, and even the named forms, like the beautiful pure white, alba; the glowing crimson Dr. Hanelle, and the new rich crimson Trimmersfield variety, come quite true to color.

This is one place where horticulturists, rather than botanists, have multiplied the species names, making several distinct kinds, based on the hairiness of the leaves, of the one plant. The plant is a native of the mountains of southern Europe, where it makes restrained hummocks of dark green leaves, which in turn are pleasing backgrounds for the rosy flowers on 3-inch stems of the type plant. Fortunately, the color, which is objectionable in the eyes of some gardeners, has varied to most brilliant shades of crimson.

In this connection it may be well to say that a number of south African plants which are sometimes seen in seed lists under *erinus* and at other times as *nycterinia* really belong to the genus *zaluzianskya*. None of these that I have experimented with are suited to eastern United States, though two or three annuals might, because

of their night-blooming habits, be of interest to the student.

Change the rosy or red color of *erinus* to blue or purplish, double the length of the flowering stem, change the habitat to an acid soil in shade and use the imagination a little and you will have a fairly good picture of *wulfenia*. It is a small genus of less than ten species confined to Europe and Asia, none being really easy in this climate, though all may be grown with a little care in the matter of moisture in dry weather. Like most of the *scrophulariads*, they come readily from seeds, which is the easiest way to increase them.

Only one kind, *Wulfenia carinthiaca*, from the mountains of Carinthia, in the eastern Alps, is general in commerce. It is a little beauty, with its nodding, deep blue flowers in a dense spike on 6-inch to 8-inch stems in June, and is one of the easiest. Two from the Himalayas, *W. Amherstiana* and *W. Wallichii*, the first with blue-purple flowers on 6-inch stems and the other with 4-inch stems of bluish-lilac flowers, seem not so easy, the latter at least requiring more moisture and both being rather tender this far north.

Thus we come to the end of our space, leaving four or five genera of the digitalis tribe to be accounted for. These, or at least *synthyris* and *veronica*, will be taken care of in the next issue.

IDAHO STATE NURSERY.

During 1938 the University of Idaho nursery planted 475,000 trees in protection and wood lot plantings on 700 farms in forty-one of the forty-four counties in the state. This is a substantial increase over the biennium when 180,000 trees were distributed. The enlarged demonstration program carried out in twenty-five counties included fifty-six new plantings, additions and improvements to twenty-four older demonstrations, exceeding the combined totals of all the previous years since the project was established.

A. H. HILL, president of the D. Hill Nursery Co., Dundee, Ill., was on a 20-day Caribbean cruise last month recuperating from the illness previously reported. Upon landing at New Orleans he spent a week or so visiting places of interest in the vicinity.

SHORT ROWS

George Washington didn't start it, perhaps, but he said plenty about it. (Yes, Chester, we are speaking about the first President.) Both he and Thomas Jefferson wrote about "soil up-keep" in Virginia, a century and one-half ago. The present conservation textbooks repeat their words. The modern farmer is beginning to profit by the accumulated knowledge about rotation, green manures, erosion, strip-control, acid-alkali, nitrogen-potash-phosphorus and all the rest of the factors. How about the modern nurseryman?

* * * * *

An old-timer recently observed: "The flour mill in my town maintains a full-time chemist, just to test every car of wheat and every day's milling, to weed out all guesswork, ensure stabilized quality and raise profits." Every nursery needs just such a man to manage its soil problems and values.

* * * * *

"Propaganda!" "Everybody's doing it, doing it, doing it" (you, of course, never heard either words or music unless your birthdate reaches back as far as the naughty nineties). Railroads, labor unions, public utilities, meat packers, sauerkraut juicers, bondholders, bureaucrats, relievers—everybody in every sector of mutual interest kicks in to pay for space in print and time on the air. Everybody except the nurseryman. Isn't it about time to take up national publicity again? The consumer dollar is still there for division. One graphic wedge ought to go for trees and plants. The national campaign was not a "push-over"; it just buttoned up and bowed out, with fair grace, before the breeze reached hurricane velocity.

* * * * *

The agencies of government—both state and federal—have planted a powerful lot of nursery stock during the past five years. Whatever opinion of nurserymen may be as to the practical merit of "public spending" in this direction (and opinion is various), the mass and momentum of the public mind appears to promise continuation of the program for some time to come. Nurserymen may as well face that fact and cooperate to see that their facilities are made use of by their government in the support of labor, taxes—and a reasonable profit for the boss.

Glacier National Park

Abundant Wild Life and Flowers, Native to the Mountain Regions, Will Be Seen in Glacier National Park by Nurserymen on the Special Tour to Portland

Glacier national park, one of the prime features included in the all-expense trip by train to the A. A. N. convention at Portland, Ore., is a natural, centuries-old exposition of glorious mountain scenery. In the words of the National Park Service, "in richness of beauty Glacier park stands alone in the world."

The park was established in 1910 by an act of Congress, but it was rededicated with Waterton lakes park, the Canadian continuation, as an international peace park in the summer of 1930. These two parks serve as a monument to the enduring friendship between the people of the United States and Canada, along whose boundary are no armed forces.

Glacier park is the larger of the two parks, with an area of 1,534 square miles. Included within this area are many spectacular glaciers, which compose the bulk of the existing glaciers in the United States that are easily accessible. Also adding color to the scene are alpine meadows that blaze with color from the many brilliant flowers, beautiful lakes fed by the melting glaciers, rainbowed waterfalls, dense green forests stretching up to the snow line and towering peaks covered with eternal snows. Many popular species of fish have been planted in the streams and lakes abounding within the park, which is truly a fisherman's paradise.

The brilliant floral display is exceptionally striking in early July. Below the timber line, where lichens, mosses and delicately colored alpine flowers are found, the mountains present a brilliant panorama of heather, gentians, wild heliotrope, stunted trees of alpine fir, whitebark pine and alpine larch. The valleys on the east side of the mountains abound with Engelmann spruce, alpine fir, lodgepole pine, Douglas fir and limber pine.

The western valleys contain an entirely different display of floral brilliance. There the flora is typified by dense climax forests, which consist of red cedar and hemlock, with intermediate forests of larch, fir, spruce and white pine. Younger stands of larch and lodgepole pine are also found. Some white pines of immense dimen-

sions are found in McDonald valley. Although wild flowers are not so plentiful on this side of the mountains, there are many bogs of sphagnum with a typical floral and animal life of their own.

On the lower elevations of the eastern slopes the vegetation is characteristic of the great plains, and such plants as the passion flower, carpet pink, shooting star, scarlet paintbrush, red and white geraniums, bronze agoseris, gaillardias, wild hollyhocks, asters and many others are found. Bear grass, which is the most characteristic plant of the park, is found in abundance there.

The wild life is represented by Big-horn mountain goats, moose, wapiti,

grizzly and black bears, western white-tailed and Rocky mountain mule deer. These animals exist in as near natural conditions as is possible in an area that is visited by so many people. Also found in the park in considerable numbers are mountain lions, bobcats and coyotes. Among the smaller animals are beaver, marmot, otter, marten, cony and others. Not to be outdone, the birds are as spectacular and gay as the flowers and animals.

Adjoining the park is a Blackfeet Indian reservation, from which a few Indian braves, their squaws and papooses come every day to greet the tourists in front of the Glacier park station hotel. Dressed in their native costumes they sing, dance and tell



On the Border of Lake McDonald in Glacier Park.

stories of the deeds of daring and skill of their forefathers.

The Going-to-the-Sun highway, over which the party will travel, links the east and west sides of the park. It crosses the continental divide through Logan pass at an altitude of 6,654 feet, and it connects with the Blackfeet highway at St. Mary's junction, a distance of fifty-one miles from Belton, the western gateway to the park. From this vantage point one may look down from the great height at which it runs and see an interesting and colorful panorama of valleys, lakes and forests.

Lake McDonald, where the party will pause for luncheon, July 7, is the largest lake in the park. It is ten miles long and one mile wide. Heavy forests of cedar, hemlock, white pine and larch line its shores. At the head of the lake impressive mountain peaks rise to heights of 6,000 feet above the surface. The Going-to-the-Sun highway runs along the entire eastern shore of the lake.

Logan pass, another interesting and scenic spot, lies between the headwaters of Logan and Reynolds creeks, it crosses the continental divide and continues the highway from Lake McDonald to Upper St. Mary lake.

Glacier park has within its boundary two parallel mountain ranges. The eastern, or front, range extends from the Canadian boundary almost without a break to New Mexico. The western, or Livingston, range rises at the head of Lake McDonald and becomes the front range beyond the international line, running northwest-

ward to Alaska. Between these two ranges in the center of the park is a broad swell which carries the continental divide from one to the other. This is Flattop mountain, whose groves of trees are open and parklike, wholly unlike the dense forests of the lowlands.

A trail leads out from Waterton over Flattop to Fifty mountain and Granite park. Here is exposed a great mass of lava, which was once molten rock from the earth's interior. Extending from the top of the mountain are gentle slopes covered with sparse clumps of stunted vegetation. In early July the open spaces are covered with golden glacier lilies and the lingering patches of snow. Beyond these are the deep, heavy forests of upper McDonald valley.

Avalanche camp, which is located in a grove of cedars and cottonwoods on a picturesque flat at the mouth of Avalanche creek, presents one of the most beautiful and awe-inspiring sights of the park. Near the upper end of the camp Avalanche creek has cut a deep, narrow gorge through the brilliant red rock formations. This gorge is filled with potholes, which have been scoured out by the swirling of stones in the racing water. Cool shade is provided by the drooping hemlocks, which are festooned with goatsbeard lichen. Here, even on the brightest sunny day, prevails an atmosphere of somber gloom. Here the water-loving ouzel can be seen flying back and forth through the spray.

From this gorge the walls rise over 2,000 feet to form a semicircular amphitheater, over the walls of which plunge a half-dozen foamy waterfalls. On the floor of the amphitheater is a calm, cool lake, surrounded by a dense forest. From the canyon leading from Avalanche camp may be seen such inspiring sights as Heaven's peak, Mount Cannon, Bearhat mountain, Gunsight mountain and Sperry glacier.

WHEREAS earlier attempts at mulberry culture at the Dominion experimental station at Morden, Man., were disappointing, strains from the dry steppes of Russia, sent by Soviet Republic horticulturists, bear generous crops every year. Cherries and plums from the same origin have held up well during trying seasons on the Canadian prairies, according to W. R. Leslie.

ANALYSING ADVERTISING

XII.

In considering the writing of advertising copy, it is not altogether a digression to consider what you have to back up that copy. For if you are sincere in your effort to give customers the best in merchandise and service, if you take pride in your attempt to do business so as to give full satisfaction to the buyers, you will constantly be thinking about the steps necessary to achieve that object. Consequently, writing advertising copy about it will not be hard, and your conviction will carry the power that earnest words convey.

If, on the other hand, you are seeking to get rid of plants you don't want on the premises, and you think it is the buyer's tough luck if he gets less out of the deal than you do, you are likely to find it hard to write advertising which will convey your message.

Not many nurserymen are of the latter type, it is gratifying to note. Most of them are in business to stay, and many count on handing a worthy business down to their sons, just as they may have received it from their fathers. Hence, there is reason to build a business of which the owner and his employees may be proud.

Nevertheless, there are weak points in any enterprise. With more experience in one branch of nursery operations or sales than another, the owner or manager may fail to give as full attention to other phases. But it is part of his job to check up all along the line to see that stock of high quality is grown, that it is graded, stored, labeled, handled and packed properly, that stock is in good shape on delivery and what the customer expects to receive and that orders are filled expeditiously and complaints given prompt and considerate attention.

Inattention to any item in this list may cause dissatisfaction on the part of the buyer. And what is the purpose in spending money to attract buyers, only to send them away when a sale has been made?

W. A. CAGLE, formerly of Monroe's Landscape & Nursery Co., Atlanta, Ga., is now in business for himself at 2159 Piedmont road, northeast.

SPECIAL TRAIN.

It is suggested that those who desire special Pullman accommodations, such as compartments, drawing rooms, etc., make reservations for such space as soon as possible. Rates for these spaces were given in the March 15 issue. Under each grouping of rates it was explained in small type what the columns headed "With rail ticket" meant. The amounts shown in the various columns headed "Without rail ticket" are for the convenience of passengers who wish to purchase their complete round-trip rail transportation from their home town east and south of Chicago or St. Paul and join the all-expense special tour party at either of those points.

Post cards to be filled out with requests for reservations of space were forwarded to A.A.N. members with the last news-letter. Their early return is requested.

William J. Smart, Chairman,
Transportation Committee.

Oppose Federal Nurseries Appropriation

A. A. N. Executive Secretary Appears Before the House Committee on Agricultural Appropriations to Present Trade's Stand on Government Production of Nursery Stock

The protest of the American Association of Nurserymen against the appropriation proposal of \$100,000 for production of nursery stock, listed as a budget item for federal farm forestry expenditures, was voiced before the House committee on agricultural appropriations by Richard P. White, executive secretary of the association, March 2. After the hearing he stated to the press:

"It is becoming increasingly evident from the forest survey, authorized by the McSweeney-McNary act of 1928, and from reports of the national forest reservation commission that protection of our forests and forest producing lands from fire, insects and diseases is the most important need of our forest lands—not a tremendous planting program.

"Therefore, in the name of economy and in the interests of the public welfare, it would seem unwise to increase appropriations for the federal production of planting stock.

"Consequently, the \$100,000 sought for federal production purposes, under the Norris-Doxey act, appearing on page 334 of the 1940 federal budget proposals, should be deleted as an unnecessary expenditure."

Mr. White pointed out that commercial nurseries are equipped to grow all planting stock required by all federal agencies and have the experience, land and capital to do so. Moreover, costs to the federal government would be materially reduced.

Ruin is already facing many of the smaller nurseries in the prairie states as a result of federal competition in that area due to the prairie states forestry project, he asserted, adding:

"The tragedy of this situation is emphasized when it is recalled that many of these smaller nurseries were slowly and patiently developed through long years of toil by the individual owners, who hoped their nurseries would provide them with a decent living in their old age."

Outline of the presentation made by Mr. White to congressmen on "An Economical Farm Forestry Program" was published in the March 1 issue of the American Nurseryman. The por-

tion relating to the increase in government production of nursery stock and the cost of its distribution by federal agencies is enlightening, and it reads as follows:

The first nursery for the production of reforestation stock supported by federal funds was established in 1901 at Bessey, Neb. By 1926 the number had increased to ten under the administration of the Forest Service, and the bureau of plant industry had established a small experimental nursery at Mandan, N. D., in 1914. Ten years later, 1935, federal agencies were operating eighty-eight nurseries, and in 1938 the number had increased to ninety-one. In 1926 a total of 165.2 acres of land was in nursery stock production by the federal government. In 1935 this had increased to 675.2 and by 1938 had further expanded to 6,075 acres.

Production in these federal nurseries, entirely supported by federal funds, totaled, in 1938, 328,662,539 trees and shrubs. Under section 4 of the Clarke-McNary law, an additional 48,000,000 trees and shrubs were distributed to farmers, and strictly state nurseries distributed another 82,000,000. Total tax-supported production in 1938 from these agencies amounted to approximately 501,000,000 trees and shrubs. In addition to this, the nursery industry is faced with nursery stock production by state prisons, fish and game commissions, county and municipal governments, water commissions, etc.

It is assumed by many that these tax-supported nurseries were necessary for the production of stock essential to meet the rapidly expanding demands of governmental agencies. The commercial nurserymen of the country had land, equipment, experience and capital to meet this demand. Stock would have grown as rapidly and as well for commercial nurserymen as for any federal agency.

It is further assumed that these federal and federal-state nurseries are producing stock which commercial nurseries are not growing and do not care to grow. That this assumption is erroneous will be proved.

A third assumption is that these

nurseries are producing strictly timber-producing trees. That this assumption is likewise at fault is readily determined by examination of the lists of nursery stock under production.

In making comparisons of average cost of distribution of planting stock, the states of the middle west have served as a study area, since the type of stock used is similar in all states and several different methods of federal distribution are in effect.

States cooperating under section 4 of the Clarke-McNary law have followed three methods of production or procurement of trees: South Dakota, since its cooperation began four years ago, purchases all its nursery stock from commercial nurseries; Nebraska and Colorado purchase respectively sixty-eight and seventy-seven per cent of their planting stock from commercial nurseries and the remainder from forest service nurseries; North Dakota, Iowa, Kansas and Oklahoma grow all the stock used in federal-state cooperative nurseries.

From the reports of the forest service over the past twelve years it is found that in South Dakota 1,450,000 trees have been distributed to farmers for a total cost of \$22,745.96, of which \$4,460 was contributed by the federal government; \$18,285.96 was the state appropriation. The cost per thousand trees planted has been \$15.68; \$3.07 borne by federal contribution and \$12.61 by state contribution, with all stock purchased from commercial nurseries.

In Nebraska and Colorado, where the majority of stock is being purchased from commercial nurseries, the average costs for the past 12-year period have been \$20.45 per thousand trees planted, \$7.86 of which has been borne by the federal government.

In North Dakota, Iowa, Kansas and Oklahoma, where federal-state nurseries produce all nursery stock requirements for farm distribution, the average costs for the past 12-year period have been \$42.93 per thousand trees planted, of which federal contributions have amounted to \$13.65.

The agricultural adjustment administration will pay as benefits to farmers planting trees in shelterbelts and farm

wood lots in this area \$7.50 per acre of approximately 500 trees or a planted cost of \$15 per thousand trees, comparing favorably with the figure of South Dakota. Here, again, the farmer must purchase his trees from commercial nurseries or from Clarke-McNary federal-state nurseries.

The prairie states forestry project, operating in the same region, is currently costing the federal government \$30 per acre of 540 trees or \$55 per thousand trees planted. This project produces its nursery stock requirements in nurseries operated by federal employees.

APPROPRIATIONS BILL.

Many cuts had been made in the agricultural appropriations bill introduced in the House of Representatives, Washington, D. C., March 23. One committee amendment to be made was the elimination of the \$240,869 increase for the national arboretum. The budget estimate was \$54,587, the same as last year, but it was raised to \$240,869 to effectuate the purchase of the remainder of the land in the original plot.

The bill is the largest appropriation for agriculture that has ever been made, but this is due primarily to the inclusion of two items, \$15,000,000 for agricultural conservation payments and \$250,000,000 for farm parity payments, which was cut out by the House, however. In order to keep the bill somewhere near the budget estimates, the committee has slashed freely. The bureau of plant industry, however, got several small increases because of the elimination of the national arboretum item, and so it wound up with a decrease in appropriation of \$26,000 as compared to 1939. The forest service lost a total of \$813,421.

The bureau of entomology and plant quarantine lost \$734,466, with decreases in departments in which nurserymen are interested as follows: Foreign insects, \$50,000; forest insects, \$53,100; gypsy and brown-tail moths, \$125,000; Dutch elm disease, \$278,489, which is \$678,489 less than the budget estimate; truck crop and garden insects, \$80,000; barberry eradication, \$100,000; thurberia weevil control, \$2,808, which wipes out this item; bee culture, \$15,000; control investigation, \$10,000; foreign plant quarantine, \$30,000.

There are two small increases for

cereal and forage insects and insecticide and fungicide investigations.

Several items included in the budget estimate as new items were refused by the committee, one of which was \$500,000 for logging of national forest timber. If this item had been allowed, timber would have been cut from the national forests at an increased rate, which would have meant possibly an increase in nursery stock production for replacement.

Under the Clarke-McNary bill, section 4, last year the item was raised from \$70,579 to the full authorization of the law, namely \$100,000. This year the committee cut it again to its old figure of \$70,579.

The Norris-Doxey act, to be administered by the soil conservation service, carries an item in the bill of \$300,000, one-half of the budget estimate of \$600,000. This item, if approved according to their justification statements before the committee, provides \$50,000 for production in cooperation with existing nurseries. The rest would be used for extension work with farmers.

WAGE-HOUR LAW.

Through Marvin Jones, chairman of the agricultural and forestry committee of the House of Representatives, an amendment to the federal wage-hour law has been submitted through the Washington office of the American Association of Nurserymen. The amendment, if passed, will provide a clarification of exemptions so as to include landscape employees, as well as employees of concerns repacking purchased material. The amendment would change the definition of agriculture to read as follows, the phrases added appearing in italics:

"Agriculture" includes farming in all its branches and among other things includes the cultivation and tillage of the soil, dairying, the production, cultivation, growing, and harvesting of any agricultural or horticultural commodities (including commodities defined as agricultural commodities in section 15 (g) of the agricultural marketing act, as amended), *the planting, transplanting and care of trees and shrubs and plants, the raising of livestock, bees, fur-bearing animals, or poultry, and any practices (including any forestry or lumbering operations) performed by a farmer or on a farm as an incident to or in conjunction with such farming operations, including preparation for market, delivery to storage or to market or to carriers for transportation to market, provided that such practices shall be performed in connection with the handling of agricultural or horticultural commodities the major portion of which have been produced upon the premises of an owning or leasing employer.*

State wage-hour bills so far proposed do not offer as broad exemptions to agriculture and the nursery trade as does the federal law. In working for a broader definition, nurserymen in the states affected might well attempt to substitute the definition of agriculture as it appears above.

The social security board's proposal to extend the coverage of the act to include agricultural and other workers was rejected March 17 by the ways and means committee of the House of Representatives.

PENNSYLVANIA TEST CASE.

A test case is under way in Pennsylvania in regard to the liability of nurserymen for the payment of unemployment compensation taxes. The Pennsylvania Nurserymen's Association is supporting the defendant, the Farr Nursery Co., Weiser Park, Pa., which is carrying the test case to court. Information and arguments to support the defendant have been supplied by the Washington office of the American Association of Nurserymen.

HIGHWAY PROJECTS.

The highway department of the state of New Jersey has advertised for bids for nursery stock to be used on a highway beautification project along highway 25, Robbinsville to Hightstown, Mercer county. The bid calls for 4,896 shrubs, 4,784 vines and 1,354 trees. Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the state highway department, Trenton, and may be inspected by prospective bidders. Bids will be received at the office of the state highway department, Trenton, until noon April 5 and will be opened and read immediately thereafter.

Bids were received by the state highway commission of Maine, March 29, on nursery stock to be used on a federal highway beautification project in the towns of New Gloucester, Auburn, Mexico and Skowhegan.

GEORGE S. SEARLE, manager of the Process Color Printing Co., Rochester, N. Y., died March 10, at his home, after a long illness. The business will go on as usual under the guidance of his two sons, who have conducted the business since Mr. Searle first became ill.

Trade Exhibits at Flower Shows

Prize-Winning Gardens Staged by Nurserymen Were Features of the Spring Shows Held in Principal Cities of the Country

At the many spring flower shows, which are held each year, nurserymen are playing a more prominent part each season. Many in the locality of the various shows are entering exhibits, usually in the form of gardens, which have been prize-winners. These are proving the most interesting features of the shows.

At New York.

The International flower show, held at the Grand Central Palace, New York, March 13 to 18, was entirely different from previous shows of this nature. While many of the exhibitors were the same as at former shows, they all went to extreme efforts to find something new and different. All of the exhibits, while formal to a large degree, were of the type that could be created to fit nearly any type of home. As usual most of the exhibitors were seedsmen and florists, but those nurserymen that entered exhibits were among the prize-winners.

Bobbink & Atkins, Rutherford, N. J., arranged a combination informal and formal garden. The rose section had a beautiful fronting of Briarcliff, Lady Margaret Stewart,

Edith N. Perkins, Max Krause, Etoile de Feu, Margaret Anne Baxter and others. The sides were bordered with *Epimedium macranthum niveum* and *Vinca minor*, above which was a hedge of *Taxus cuspidata capitata*. *Rhododendrons*, azaleas and squares of *Ilex Fortunei* completed the planting, along with dogwoods with just enough color showing to lend the necessary artistic touch.

Turner Bros. Nursery, West Long Branch, N. J., exhibited a sunken rose garden, which consisted of four beds of tea roses, edged with boxwood. There was a rose trellis on each side of the garden, and in the rear a large plot of grass with four corner plantings of hybrid roses. A series of three steps led to each of the trellises, and paths extending from the main garden sloped off toward the corners with beautiful plantings of white and pink peonies and yellow lilies. The display was backed by an old brick wall.

F. C. Leubuscher, Essex Fells, N. J., with a splendid 400 square foot rock garden took first prize in this class. The exhibit represented an abandoned quarry, with alpines added to the native plants supposedly found

under such conditions. A large pitch pine looked down upon a small waterfall tumbling into a rock-bound pool, with small pieces of natural quarry stone lying around in a haphazard fashion. In this exhibit were shown two plants native to the Rocky mountain area and claimed by Mr. Leubuscher to be shown for the first time in the east, *kalmiopsis* and *Ranunculus montana*, otherwise known as the alpine buttercup. Over 100 different species of plants suitable for rock garden purposes were shown.

In the 150-foot class for rock gardens, Zenon Schreiber took first place, with second place going to Effingham Pinto. The gardens were fashioned in combination, with short babbling brooks running from one goldfish-filled pool to another.

A separate display by Bobbink & Atkins, Rutherford, N. J., contained *Azalea americana*, *mollis* and *Hinomayo*; *zenobia*, *Daphne Cneorum* and two varieties of magnolia.

Twin City Exhibits.

The flower show at the auditorium in Minneapolis, Minn., March 11, had a display of material that was equal in quality to any displayed at



Rose Garden of Bobbink & Atkins at International Flower Show, New York.

the many shows in the country. The exhibits showed much work and finish of detail.

At one end of the exhibition hall the Rose Hill Nursery, St. Paul, showed a natural planting marked by good taste and restraint. Fine specimen evergreens at the back were a good foil for the borders of spring-flowering shrubs. Rambler roses, tulips and narcissi were but a small part of the flowers used in the borders around a good lawn made of grasses and clovers. The plan showed what could be done around the home, a result not always obtained at flower shows.

The Hans Rosacker Co., Minne-

which were magnolias in bloom. The walls were draped with southern smilax.

Philadelphia Show.

The theme of the Philadelphia flower show, at the Commercial Museum, Philadelphia, March 20 to 25, was supermodernistic. This idea was carried out in that the high-ceilinged building was illuminated by indirect lighting and further softened by a canopy of wild smilax, giving the appearance of an outdoor arbor.

Bobbink & Atkins, Rutherford, N. J., prize-winners at the New York show, were also present at Philadelphia. This firm won an award with

They also staged a rock garden with a waterfall.

Walter Hengel's first-prize patio contained white birches, cedars and azaleas in the background and flagstone walks, grass and a hedge. Arthur Lee, Bridgeport, Pa., designed and planted a garden of hardy primulas enhanced by willows, flowering apple and shrubbery. The artistic skill of Walter Hengel also captured the blue ribbon for a rock garden that combined tall pine trees, white azaleas, cedars and a waterfall and stream skillfully arranged.

The rose garden of Henry A. Dreer, Inc., Philadelphia, was a gem for rosarians to see. Each variety was planted by itself in one bed. There were many varieties planted. Queen Mary, magnificently grown and freely flowered, stood out prominently among the splendid selection. The summerhouse was charming, and the whole was surrounded by a wall topped by a panel fence.

An outdoor fireplace won second prize for Roland Lee, Norristown, Pa., with a background of cedar trees and shrubbery to bring out the idea more clearly. First prize went to the Outdoor Art Co., Philadelphia, for its cleverly executed double wall, with growing plants thereon.

At Boston.

The annual spring flower show of the Massachusetts Horticultural Society, held at the Mechanics building, Boston, Mass., March 16 to 21, depicted gardening through the ages as its central theme.

A splendid arrangement of azaleas, rhododendrons and other shrubs, from the Bay State Nurseries, North Abington, Mass., was awarded a silver medal. Tow Path Gardens, Inc., West Hartford, Conn., received a special prize for the garden of yesterday.

Garden in the Woods won for the finest exhibit of seasonal material, with Bay State Nurseries a good second. Framingham Nurseries, Framingham, Mass., had a group of azaleas, as had Van's Nursery & Landscape Service, Fairhaven.

For a border of hardy shrubs and other material, Garden in the Woods was first and Lawrence Ellery, Keene, N. H., second.

Weston Nurseries, Inc., Weston, Mass., received a silver medal for a naturalistic garden, and a similar



Azaleas in Bloom in Exhibit of Cherry Hill Nursery at Boston Show.

apolis, reproduced a woodland scene, replete with a stream fed by water coming out of the rocks at intervals, while long borders surrounded the grassy banks. A birch fence and white birch gates enclosed this unusual display.

Holm & Olson, Inc., St. Paul, occupied a large corner where a gazing globe occupied a circular space in the center of a lawn. A low stone wall encircled the lawn, which was interspersed with steppingstones. Narcissi in many varieties and types, hyacinths and other bulbous flowers filled the large borders, notable for quality and variety. Flowering shrubs were used in the background, among

a rose garden designed to be seen from a summerhouse approached by terraces and beautified by tea roses. The roses planted in the display were in solid beds on the surrounding lawn, enclosed by a white picket fence with telling effect.

Charles S. Swayne, Mendelhall, Pa., arranged an informal garden of what may be termed rock flowers and woodland plants, with a pool judiciously planned to add effect.

Henkels & McCoy, Philadelphia, won a second prize with their representation of a patio, using flagstone walks, high walls, flower beds of geraniums and yellow daisies and a large orange tree along the walk.



Landscapers' Group Featured Terrace Pools in Planting at St. Louis Show.

award went to the Cape Cod Nurseries, Falmouth, Mass., for a spring garden.

Cherry Hill Nurseries, West Newbury, Mass., had a delightful planted exhibit of azaleas and other seasonal material. Another splendid arrangement of azaleas, rhododendrons and other shrubs was presented by the Bay State Nurseries, which were awarded a silver medal.

Record at St. Louis.

The St. Louis flower show, held at the Arena, St. Louis, Mo., March 18 to 25, set a record for artistic effect as a whole and for the finish of individual displays.

Westover Nursery Co., Clayton, Mo., won the first prize for a foundation planting. The material used included spruce, pine, yew, hemlock and junipers in several varieties. A painted backdrop suggested a brick house and vista beyond.

J. L. Baumann, St. Louis, won second prize in this class with a facade of a low white bungalow, with evergreens and flowering spiræas below the windows and at the corners. Third prize went to the Gern Nursery, Afton, Mo., which had a painted backdrop of a house, with tall and low evergreens alternating along the foundation and a pleasing group of taller specimens at the left-hand corner.

The Landscape and Nurserymen's Association of Greater St. Louis staged a 2,000-foot planting, featuring pools on four levels, the water descending from a circular terrace containing tulip beds. Borders held

shrubs in bloom and daffodils among the evergreens. J. L. Baumann showed a rectangular pool, edged with prostrate evergreens, in the center of a lawn, a flag terrace at the back and flowering shrubs and tulips in the curving side borders.

The rock garden of the Gern Nursery, Afton, which had a terraced planting, with flagstone walls, and rock plants in pockets and crevices, took second place.

Groups of specimen evergreens, containing at least fifteen varieties each, were entered by four growers. The Houlihan Nursery Co. was first; A. Bender & Son, St. Louis, were sec-

ond; Sanders Nursery Co., St. Louis, was third, and Westover Nursery Co., fourth. For a group of deciduous plants in bloom, the Houlihan Nursery Co. was first.

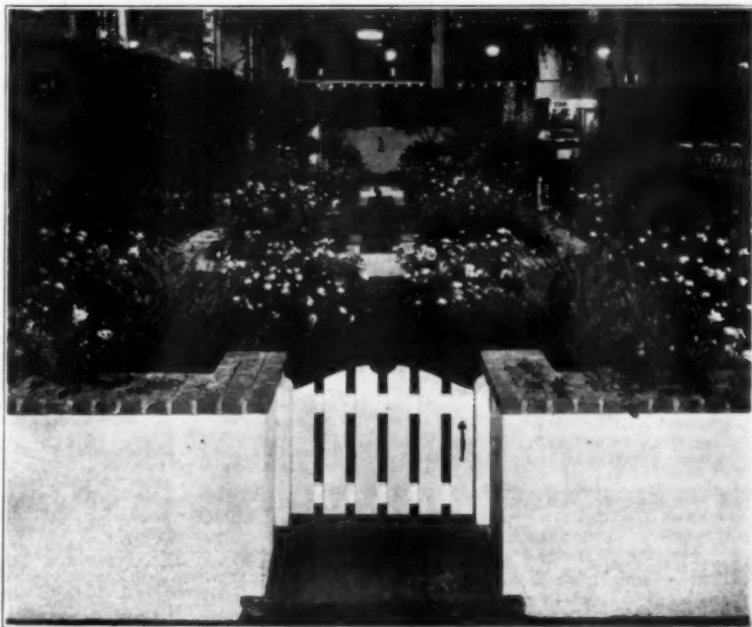
Spring Fiesta At New Orleans.

The fifth annual flower show of the New Orleans Horticultural Society was held in the municipal auditorium at New Orleans, La., March 17 to 19.

The parkways commission of New Orleans made a big bed of large azaleas in full flower, at the entrance.

At the far end of the hall, Henry

[Concluded on page 30.]



Rose Garden of Henry A. Dreer, Inc., at Philadelphia.

APRIL CLOSE-OUT SPECIAL BARGAIN LIST

Due to the unusual early spring weather we are having we are offering the following surplus stock at these special discounts for quantity orders booked after April 5.

| | |
|---------------------------|-----|
| \$ 50.00 to \$100.00..... | 5% |
| 100.00 to 200.00..... | 10% |
| 200.00 to 300.00..... | 15% |
| 300.00 to 500.00..... | 20% |
| 500.00 and up | 25% |

An additional discount of 5% and free packing for cash with order. Net June 1. This discount applies to stock offered in this list and booked after April 5. All stock guaranteed to be in first-class condition and good quality. No order accepted for less than 50 plants in any variety or grade except trees 5 to 6 feet or larger and not less than 10 of this size at this discount. Wire order Western Union collect for orders of \$100.00 or more.

HARDY DECIDUOUS FLOWERING SHRUBS

| | | | | | | | | | | | |
|---|--------|---------|---------|--|--------|---------|---------|--|--------|---------|----------|
| ALMOND. PRUNUS GLANDULOSA. Double pink-flowering, own root. | | | | HYPERICUM DENSIFLORUM. | | | | SAMBUCUS CANADENSIS. Common Elder. | | | |
| Per | Per | Per | Per | Per | Per | Per | Per | Per | Per | Per | Per |
| 10 | 100 | 1000 | 1000 | 10 | 100 | 1000 | 1000 | 10 | 100 | 1000 | 1000 |
| 12 to 18 inches, Tr., well | | | | 6 to 12 inches, S. | \$0.20 | \$1.25 | \$10.00 | 6 to 12 inches, S. | \$0.60 | \$3.00 | \$5.00 |
| branched | \$1.50 | \$12.00 | ..... | 12 to 18 inches, S. | .30 | 2.00 | 15.00 | 12 to 18 inches, S. | .80 | 7.00 | |
| 18 to 24 inches, Tr., well | | | | 12 to 18 inches, Tr. | .70 | 6.00 | 50.00 | 18 to 24 inches, S. | \$0.15 | 1.00 | 9.00 |
| branched | 2.00 | 17.50 | ..... | 18 to 24 inches, Tr. | 1.00 | 8.00 | 70.00 | SPIRÆA ARGUTA. Garland Spiraea. | | | |
| 2 to 3 feet, Tr., well | | | | LIGUSTRUM AMURENSE. | | | | 6 to 12 inches, C. | \$0.40 | \$3.00 | \$25.00 |
| branched | 2.50 | 22.50 | ..... | Amoor North Privet. | | | | 12 to 18 inches, C. | .50 | 4.00 | 30.00 |
| ALTHEA. HIBISCUS SYRIACUS. | | | | 6 to 15 inches, L.O. | \$0.60 | \$5.00 | | 18 to 24 inches, 2-yr., Tr. | 1.00 | 8.00 | ..... |
| Roses, seedlings, single flowers. | | | | 6 to 12 inches, 2 branches | | .80 | 6.00 | 2 to 3 feet, 2-yr., Tr. | 1.25 | 10.00 | ..... |
| 12 to 18 inches, S. | | \$0.50 | \$4.00 | 12 to 18 inches, 3 branches | | 1.00 | 9.00 | SPIRÆA THUNBERGII. Thunberg's | | | |
| 18 to 24 inches, S. | | .90 | 5.00 | up | .30 | 1.50 | 12.00 | Spiraea. | | | |
| 2 to 3 feet, S. | | .50 | 7.00 | 18 to 24 inches, 2 branches. | .30 | 1.50 | 12.00 | 6 to 12 inches, C. | \$0.40 | \$3.00 | \$25.00 |
| BENZONIA ÆSTIVALE. Spicebush. | | | | 18 to 24 inches, 3 branches | | .35 | 2.25 | 12 to 18 inches, C. | .45 | 3.50 | 30.00 |
| 6 to 12 inches, S. | \$0.20 | \$1.25 | \$10.00 | up | .35 | 3.00 | 25.00 | SPIRÆA VANHOUTTEI. | | | |
| 12 to 18 inches, S. | .35 | 1.50 | 12.50 | 2 to 3 feet, 4 branches up | .35 | 3.00 | 25.00 | 6 to 12 inches, 1-yr., C. | \$0.15 | \$1.00 | \$9.00 |
| 18 to 24 inches, S. | .35 | 2.50 | 20.00 | LIGUSTRUM OBTUSIFOLIUM. | | | | 12 to 18 inches, 1-yr., C. | .20 | 1.25 | 11.00 |
| BERBERIS THUNBERGII. | | | | Ibota Privet. | | | | 18 to 24 inches, 1-yr., C. | .25 | 1.75 | 14.00 |
| Japanese Barberry. | | | | 6 to 12 inches, 2 branches | | \$0.20 | \$1.25 | 12 to 18 inches, Hedging.... | .35 | 2.50 | 20.00 |
| 6 to 9 inches, S. | \$0.60 | \$5.00 | | up | .30 | 1.50 | 12.00 | 18 to 24 inches, Hedging.... | .40 | 3.00 | 25.00 |
| 9 to 12 inches, S. | \$0.15 | 1.00 | 9.00 | 12 to 18 inches, 2 branches. | .35 | 1.50 | 12.00 | 2 to 3 feet, Hedging.... | .50 | 4.00 | 35.00 |
| CALLICARPA AMERICANA. | | | | 12 to 18 inches, 3 branches | | .30 | 2.00 | SYMPHORICARPOS VULGARIS. Coral- | | | |
| American Beauty-berry. | | | | 18 to 24 inches, 3 branches | | .35 | 2.50 | berry. | | | |
| 18 to 24 inches, Tr. | \$0.80 | \$7.00 | ..... | up | .35 | 2.50 | 20.00 | 6 to 12 inches, 1-yr., C. | \$0.15 | \$1.00 | \$8.00 |
| 2 to 3 feet, Tr. | 1.00 | 9.00 | ..... | LIGUSTRUM OVALIFOLIUM. | | | | 12 to 18 inches, 1-yr., C. | .20 | 1.25 | 10.00 |
| CARAGANA ARBORESCENS. Siberian Pea | | | | California Privet. | | | | 18 to 24 inches, 1-yr., C. | .25 | 2.00 | 15.00 |
| Tree. | | | | 6 to 15 inches, L.O. | \$0.45 | \$3.50 | | 12 to 18 inches, Tr. | .40 | 3.50 | 30.00 |
| 6 to 12 inches, S. | \$0.10 | \$0.90 | \$7.00 | 6 to 12 inches, 2 branches | | .60 | 4.50 | 18 to 24 inches, Tr. | .55 | 4.50 | 40.00 |
| 12 to 18 inches, S. | .15 | 1.00 | 8.00 | up | .30 | 1.25 | 10.00 | VITEX AGNUS-CASTUS. Lilac Chaste | | | |
| CEPHALANTHUS OCCIDENTALIS. But- | | | | 12 to 18 inches, 3 branches | | \$0.15 | 1.00 | Tree. | | | |
| tonbush. | | | | up | .30 | 1.25 | 10.00 | VITEX INCISA. Cut-leaved Chaste Tree. | | | |
| 6 to 12 inches, C. | \$0.20 | \$1.25 | \$10.00 | LIGUSTRUM SINENSE. South Privet. | | | | 12 to 18 inches, S. | \$0.20 | \$1.25 | \$10.00 |
| 12 to 18 inches, C. | .35 | 1.50 | 12.00 | 6 to 12 inches, S. | \$0.40 | \$3.00 | | 18 to 24 inches, S. | .25 | 1.50 | 12.50 |
| 18 to 24 inches, Tr. | 1.25 | 10.00 | ..... | 12 to 18 inches, S. | .50 | 4.00 | | 2 to 3 feet, Tr., branched | .30 | 7.00 | ..... |
| 2 to 3 feet, Tr. | 1.50 | 12.50 | ..... | 18 to 24 inches, S. | .70 | 6.00 | | 3 to 4 feet, Tr., branched | 1.25 | 10.00 | ..... |
| CORNUS AMOMUM. Silky Dogwood. | | | | 2 to 3 feet, S. | \$0.15 | 1.00 | 8.00 | WEIGELA. | | | |
| CORNUS SANGUINEA. Bloody Twig Dog- | | | | 12 to 18 inches, Tr. | .30 | 1.25 | 10.00 | Varieties: | | | |
| wood. | | | | 18 to 24 inches, Tr. | .30 | 2.00 | 15.00 | Amabilis, light pink | | | |
| CORNUS STOLONIFERA. Red Osier Dog- | | | | 2 to 3 feet, Tr. | .35 | 2.50 | 20.00 | Hendersonii, dark pink | | | |
| wood. | | | | LONICERA FRAGRANTISSIMA. Winter | | | | Rosea, pink | | | |
| 6 to 12 inches, C. | \$0.15 | \$1.00 | \$ 8.00 | Honeysuckle. | | | | 6 to 12 inches, C. | \$0.25 | \$1.50 | \$12.50 |
| 12 to 18 inches, C. | .20 | 1.25 | 10.00 | 6 to 12 inches, C. | \$0.35 | \$1.50 | \$12.00 | 12 to 18 inches, C. | .30 | 2.00 | 15.00 |
| 18 to 24 inches, C. | .30 | 2.00 | 15.00 | 12 to 18 inches, C. | .30 | 2.00 | 15.00 | 18 to 24 inches, C. | .35 | 2.50 | 20.00 |
| 12 to 18 inches, 3 branches | | | | 12 to 18 inches, 2-yr., 3 | | .45 | 3.50 | branched | .45 | 3.50 | 30.00 |
| and up | .35 | 2.50 | 20.00 | branches up | .55 | 4.50 | 40.00 | 18 to 24 inches, Tr. | .60 | 5.00 | 45.00 |
| 18 to 24 inches, 3 branches | | | | LONICERA FRAGRANT. Fragrant Hon- | | | | branched | .60 | 5.00 | 45.00 |
| and up | .50 | 4.00 | 35.00 | ey-suckle. | | | | WEIGELA VARIEGATED. Pink flower, | | | |
| 2 to 3 feet, 4 branches | | | | 6 to 12 inches, C. | \$0.35 | \$1.50 | \$12.00 | variegated leaf. | | | |
| and up | .70 | 6.00 | 50.00 | 12 to 18 inches, C. | .30 | 2.00 | 15.00 | 6 to 12 inches, C. | \$0.30 | \$2.00 | \$15.00 |
| 3 to 4 feet, 4 branches | | | | 12 to 18 inches, C. | .35 | 2.50 | 20.00 | 12 to 18 inches, C. | .35 | 2.50 | 20.00 |
| and up | 1.25 | 10.00 | 90.00 | 12 to 18 inches, 2-yr., 3 | | .45 | 3.50 | 18 to 24 inches, C. | .40 | 3.00 | 25.00 |
| Less 10% in 5,000 lots. | | | | branches up | .55 | 4.50 | 40.00 | Evergreen Grafts | | | |
| CORYLUS AMERICANA. Hazelnut. | | | | LONICERA FRAGRANT. Fragrant Hon- | | | | Per | Per | Per | Per |
| 6 to 12 inches, S. | \$0.35 | \$2.50 | \$20.00 | ey-suckle. | | | | 10 | 100 | 1000 | 1000 |
| 12 to 18 inches, S. | .40 | 3.00 | 25.00 | 6 to 12 inches, C. | \$0.35 | \$2.00 | \$15.00 | 2 1/2-inch pots | \$3.00 | \$25.00 | \$220.00 |
| CYTISUS SCOPARIUS. Scotch Broom. | | | | 12 to 18 inches, C. | .35 | 2.50 | 20.00 | Grafts available the latter part of April | | | |
| 4 to 6 inches, L.O. | \$0.25 | \$1.50 | ..... | 18 to 24 inches, C. | .40 | 3.00 | 25.00 | or first of May. All Juniper Grafts on Red | | | |
| 6 to 9 inches, L.O. | .30 | 2.00 | ..... | 12 to 18 inches, Hedging.... | .50 | 4.00 | 35.00 | Cedar understock. Please let us have your | | | |
| 9 to 12 inches, L.O. | .35 | 2.50 | ..... | RHODOTYPHUS KERRIOIDES. White | | | | reservation order early. | | | |
| 12 to 18 inches, L.O. | .40 | 3.00 | ..... | Kerria. | | | | Junipers: Varieties: | | | |
| DEUTZIA SCABRA. | | | | 6 to 12 inches, S. | \$0.45 | \$4.00 | ..... | Chinensis Sargentii | | | |
| Varieties: | | | | 12 to 18 inches, S. | .60 | 5.00 | ..... | Virginiana Burkii | | | |
| Candidissima, single white | | | | RHUS CANADENSIS. (Aromatica) Fra- | | | | Virginiana Canertii | | | |
| Crenata, double pink | | | | grant Sumac. | | | | Virginiana Elegantissima | | | |
| Pride of Rochester, double rose | | | | 18 to 24 inches, Tr. | \$1.25 | \$10.00 | \$90.00 | Virginiana Glauca | | | |
| 6 to 12 inches, C., L.O. | \$0.20 | \$1.25 | \$10.00 | 2 to 3 feet, Tr. | 1.50 | 12.50 | 100.00 | Virginiana Globosa | | | |
| 12 to 18 inches, C., L.O. | .25 | 1.50 | 12.00 | 3 to 4 feet, Tr. | 2.25 | 18.00 | 125.00 | Virginiana Pyramidiformis Hillii | | | |
| 18 to 24 inches, C., L.O. | .30 | 2.00 | 15.00 | RHUS COPALLINA. Shining Sumac. | | | | Virginiana Keteleeri | | | |
| 18 to 24 inches, Tr., well | | | | 12 to 18 inches, S. | \$0.75 | \$6.00 | | Each | | | |
| branched | .50 | 4.00 | 35.00 | 18 to 24 inches, S. | \$0.10 | .90 | 7.00 | Juniperus Pfitzeriana, 2 1/2-in. pots..... | \$0.15 | | |
| 2 to 3 feet, Tr., well | | | | 18 to 24 inches, Tr., | | | | Prices packed and F.O.B. Sparta, Kentucky, | | | |
| branched | .70 | 6.00 | 50.00 | branched | .50 | 4.00 | 35.00 | or Tippecanoe City, Ohio. | | | |
| FORSYTHIA FORTUNEL. | | | | 2 to 3 feet, Tr., branched | .90 | 5.00 | 45.00 | Miscellaneous | | | |
| Fortune Forsythia. | | | | RHUS. Sumac. | | | | Per | Per | Per | Per |
| 12 to 18 inches, C. | \$0.25 | \$1.50 | \$12.00 | Varieties: | | | | 10 | 100 | 1000 | 1000 |
| 18 to 24 inches, C. | .30 | 2.00 | 15.00 | Glabra, Smooth Sumac. | | | | IRIS. German Iris. | | | |
| 12 to 18 inches, 2-yr., well | | | | Typhina, Staghorn Sumac. | | | | Queen of May, Lav.-pink | \$0.20 | \$1.25 | \$10.00 |
| branched | .40 | 3.00 | 25.00 | 18 to 24 inches, S. | \$0.10 | \$0.90 | \$7.00 | Yellow | .30 | 1.25 | 10.00 |
| HAMAMELIS VIRGINIANA. Witch Hazel. | | | | 2 to 3 feet, S. | .30 | 1.50 | 10.00 | Mauve | .30 | 1.25 | 10.00 |
| 6 to 9 inches, S. | \$0.35 | \$2.50 | \$20.00 | 4 to 5 feet, Tr., branched | 1.25 | 10.00 | 80.00 | Cream | .30 | 1.25 | 10.00 |
| 9 to 12 inches, S. | .40 | 3.00 | 25.00 | 5 to 6 feet, Tr., branched | 1.50 | 12.00 | ..... | Mixed Colors, 20 varieties | .30 | 1.25 | 10.00 |
| 12 to 15 inches, S. | .45 | 3.50 | 30.00 | 6 to 8 feet, Tr., branched | 2.00 | 16.00 | ..... | IRIS. Japanese Iris. | | | |
| HYDRANGEA PANICULATA GRANDI- | | | | ROBINIA HISPIDA. Rose Acacia. | | | | Blue | \$0.40 | \$3.00 | \$25.00 |
| FLORA. Peegee Hydrangea. | | | | 12 to 18 inches, L.O. | \$0.30 | \$1.25 | \$10.00 | Purple | .40 | 3.00 | 25.00 |
| 3 to 6 inches, L.O. | \$0.40 | \$3.00 | \$25.00 | 18 to 24 inches, L.O. | .30 | 2.00 | 15.00 | White | .40 | 3.00 | 25.00 |
| 6 to 12 inches, L.O. | .45 | 3.50 | 30.00 | | | | | YUCCA FILAMENTOSA. | | | |
| 2 to 3 feet, Tr. | 2.50 | 20.00 | ..... |  |  |  |  | 1-yr. S., No. 2 | \$0.25 | \$1.50 | \$12.50 |

FOREST AND SHADE TREES

| ACER DASYCARPUM. Silver Maple. | | | |
|--------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.05 | \$3.00 | |
| 12 to 18 inches, S. | .60 | 8.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.015 | 1.00 | 9.00 |
| 3 to 4 feet, S. | .30 | 2.25 | 18.00 |

| ACER SACCHARUM. Sugar or Hard Maple. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.015 | \$1.00 | \$8.00 |
| 12 to 18 inches, S. | .30 | 1.25 | 10.00 |
| 18 to 24 inches, S. | .35 | 1.50 | 12.00 |

| ESCOLUS OCTANDRA. Yellow Buckeye. | | | |
|-----------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.015 | \$1.00 | \$7.00 |
| 6 to 12 inches, S. | .30 | 1.25 | 9.00 |
| 12 to 18 inches, S. | .35 | 1.50 | 12.00 |

| BETULA NIGRA. River Birch. | | | |
|----------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 8 feet, Tr. | \$.05 | 6.00 | |
| 8 to 10 feet, Tr. | .60 | | |
| 10 to 12 feet, Tr. | 1.00 | | |

| CATALPA BIGNONOIDES. Common Catalpa. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.04 | \$3.50 | |
| 12 to 18 inches, S. | .60 | 8.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.01 | .90 | 8.00 |

| CATALPA SPECIOSA. Western Catalpa. | | | |
|------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.04 | \$3.50 | |
| 12 to 18 inches, S. | .60 | 8.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.01 | .90 | 8.00 |

| CERCIS CANADENSIS. American Redbud. | | | |
|-------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.01 | \$0.80 | \$6.00 |
| 12 to 18 inches, S. | .15 | 1.00 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, Tr. | 1.50 | 12.50 | |
| 4 to 5 feet, Tr. | 2.25 | 17.50 | |
| 5 to 6 feet, Tr. | 3.00 | 25.00 | |

| CITRUS TRIFOLIATA. Hardy Orange. | | | |
|----------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.03 | \$2.00 | |
| 6 to 12 inches, S. | .40 | 3.00 | |
| 12 to 18 inches, S. | .45 | 3.50 | |

| CORNUS FLORIDA. White-flowering Dogwood. | | | |
|--|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.02 | \$1.25 | \$10.00 |
| 12 to 18 inches, S. | .30 | 2.00 | 15.00 |
| 18 to 24 inches, S. | .35 | 2.50 | 20.00 |
| Special Grafting Grade. | .35 | 2.50 | 20.00 |
| 6 to 8 feet, Tr., branched | 8.50 | 75.00 | |
| 8 to 10 feet, Tr., branched | 12.50 | 110.00 | |

| DIOSPYROS VIRGINIANA. American Persimmon. | | | |
|---|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 3 to 6 inches, S. | \$.04 | \$3.00 | |
| 6 to 12 inches, S. | .50 | 4.00 | |
| 12 to 18 inches, S. | .60 | 5.00 | |

| FAGUS AMERICANA. American Beech. | | | |
|----------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$4.00 | |
| 6 to 12 inches, S. | .80 | 7.00 | |
| 12 to 18 inches, S. | \$.015 | 1.00 | 9.00 |
| 18 to 24 inches, S. | .25 | 1.50 | 12.50 |

| FRAXINUS AMERICANA. White Ash. | | | |
|--------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.04 | \$3.00 | |
| 12 to 18 inches, S. | .60 | 5.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.015 | 1.00 | 9.00 |

| FRAXINUS LANCEOLATA. Green Ash. | | | |
|---------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.04 | \$3.00 | |
| 12 to 18 inches, S. | .60 | 5.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.015 | 1.00 | 9.00 |

| GLEDITSIA TRIACANTHOS. Honey Locust. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.03 | \$2.00 | |
| 6 to 12 inches, S. | .50 | 3.50 | |
| 12 to 18 inches, S. | .60 | 5.00 | |
| 18 to 24 inches, S. | \$.015 | 1.50 | 8.00 |

| JUGLANS CINEREA. Butternut. | | | |
|-----------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.015 | \$1.00 | \$8.00 |
| 12 to 18 inches, S. | .25 | 1.50 | 12.00 |
| 18 to 24 inches, S. | .30 | 2.25 | 17.50 |

| JUGLANS NIGRA. Black Walnut. | | | |
|------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.015 | \$1.00 | \$8.00 |
| 12 to 18 inches, S. | .25 | 1.50 | 12.00 |
| 18 to 24 inches, S. | .30 | 2.25 | 17.50 |

| LIQUIDAMBAR STYRACIFLUA. Sweet Gum. | | | |
|-------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.08 | \$6.00 | |
| 6 to 12 inches, S. | \$.015 | 1.00 | 8.00 |
| 12 to 18 inches, S. | .25 | 1.50 | 12.00 |
| 18 to 24 inches, S. | .35 | 2.25 | 17.50 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 6.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |
| 2 to 2 1/2-inch caliper | 15.00 | 125.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| LIRIODENDRON TULIPIFERA. Tulip Tree. | | | |
|--------------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches, S. | \$.05 | \$3.50 | |
| 6 to 12 inches, S. | .60 | 8.00 | |
| 12 to 18 inches, S. | \$.01 | .90 | 8.00 |
| 18 to 24 inches, S. | .20 | 1.25 | 10.00 |
| 2 to 3 feet, S. | .30 | 2.00 | 15.00 |
| 3 to 4 feet, S. | .40 | 3.00 | 25.00 |
| 5 to 6 feet, Tr. | 5.00 | 45.00 | |
| 6 to 8 feet, Tr. | 8.00 | 70.00 | |
| 1 1/4 to 1 1/2-inch caliper | 10.00 | 90.00 | |
| 1 1/2 to 2-inch caliper | 12.00 | 100.00 | |

| MACLURA POMIFERA. Osage Orange. | | | |
|---------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 4 to 6 inches | \$.03 | \$2.00 | |
| 6 to 12 inches | .40 | 3.00 | |
| 12 to 18 inches | .50 | 4.00 | |

| MAGNOLIA TRIPETALA. Umbrella Magnolia. | | | |
|--|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.03 | \$2.00 | \$15.00 |
| 12 to 18 inches, S. | .35 | 2.50 | 20.00 |
| 18 to 24 inches, S. | .50 | 4.00 | 35.00 |

| MORUS ALBA TATARICA. Russian Mulberry. | | | |
|--|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.04 | \$3.00 | |
| 12 to 18 inches, S. | .60 | 5.00 | |
| 18 to 24 inches, S. | .80 | 7.00 | |
| 2 to 3 feet, S. | \$.015 | 1.00 | 9.00 |

| NYSSA SYLVATICA. Black Gum. | | | |
|-----------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.015 | \$1.00 | \$7.00 |
| 12 to 18 inches, S. | .20 | 1.25 | 10.00 |
| 18 to 24 inches, S. | .25 | 1.50 | 12.00 |

| OXYDENDRON ARBOREUM. Sourwood. | | | |
|--------------------------------|--------|---------|----------|
| | Per 10 | Per 100 | Per 1000 |
| 6 to 12 inches, S. | \$.015 | \$1.00 | \$8.00 |
| 12 to 18 inches, S. | .20 | 1.25 | 10.00 |
| 18 to 24 inches, S. | .25 | 1.50 | 12.00 |

| | | | |
|---------------------------------------|--------|--------|--------|
| 6 to 12 inches, S. | \$0.15 | \$1.00 | \$7.00 |
| 12 to 18 inches, S. | .20 | 1.25 | 10.00 |
| 18 to 24 inches, S. | .25 | 1.50 | 12.00 |
| OXYDENDRON ARBOREUM. Sourwood. | | | |



Charlie Chestnut



Getting Even with Old John Bushbottom

Secy. of the Wash. D. C. Fund,
Dear Mr. White:

You have been writing to Emil off and on about different nurserymen which wants to join the convention. We are in favor of that and the most of the ones is as good as another. But today we got your letter about Old John Bushbottom.

I am surprised that Old John would have the nerve to give me and Emil for reference, especially as he told me right to my face that he was out to get me. He told me that right at the convention in Chi. last January.

I can tell you one thing, Mr. White, old John aint fit to be a member of the convention, and so far as me and Emil is concerned you can leave him out of it. You may think I am prejudiced at Old John. Well, I wouldnt go so far as to say he is crooked, but there aint no question he leans too far. I will leave it to you to say if I aint right, Mr. White, after I tell you of a deal that Old John and Emil was mixed up in one spring a few years back. It just goes to show that he aint fit for the convention.

I remember me and Emil was sitting in the office one rainy day in spring. The mail man had just left the mail, and me and Emil was going over the advertising and the bills and we come to the letter from old John.

"I wonder what old John has got up his sleeve now," Emil says. "Open it up and see what he says."

So I opened the letter and read it to Emil. John writes awful. It looks like he never went past the third grade, but of course that wouldnt bar him from the convention on that account. It was a long letter and hard to make out. I aint got the letter now, and that is where old John has got us, so I cant tell you exactly what it said. But it read about like this:

Riverbend Nursery: Gents: I guess I told you at the convention in Chicago last January that I am bidding on a lot of government stuff and doing real good at it. Of course, I aint got all the stuff, but I bid anyway so I can help out some of the boys which has got a surplus of certain items. Now take Barberry. I got quite a few, but I am short some, so I can help you out and move quite a few for you if you will sell reasonable. You know how the government is. They wont pay nothing like stuff is worth. But I want to pass this business around and I have got you

down for a few. I could take 1000 for shipment to East St. Louis. What could you leave me have them for? Leave me know quick. Yours truly, John Bushbottom.

Now there wasnt nothing wrong with that letter was there, Mr. White? Just a ordinary mill run, open and shut letter like you are liable to get any day.

Emil and me talked it over and decided to ask a good price, and if old John wanted the stuff it was O. K. with us, so we decided to ask him 15c as barberry was scarce that spring. So we wired John as follows:

"We will furnish the barberry at 15c."

"Probably he wont bite on that," Emil says, "but we have got him short and he will not catch me this time and get my stuff for nothing. Its 15c or nothing," Emil says.

Next day we got a telegram from old John. It said,

"Ship the barberry at once prepaid."

So we packed it up and sent it out all in good order. A few days later old John stopped in the office and visited around a little and then he says:

"Say Emil, just check up on that letter and see if I said to send the barberry to Peoria or East St. Louis."

So Emil took the basket off the top

of the desk and handed old John the letter so he could check up on himself. Well sir, Mr. White, that was the last we thot of it till several days later.

Old John said, "Lets go down to the barbecue stand and I will buy you a beer and a hamburger."

We all went down and old John paid the bill on his own accord. Now that aint like old John to pay for anything like that. You know that Mr. White. Old John aint just got it in him to do it, so I was a little surprised. And that is one of the reasons why I have got my suspicions about John as you will see when I tell you what happened afterward.

After a week we got a special delivery letter. I remember it was a warm day along in May and me and Emil was out in the barn fixing a cultivator when the letter come. It was a letter from old John.

"I'll bet it is something phony about that order for the barberry," says Emil.

Sure enough it was. I have got that letter now, but it dont prove nothing about why I dont want old John to join the convention, but it sounds a little suspicious Mr. White. Here is the letter:

Riverbend Nursery: Gents: You have made a big mistake. I ordered 100 barberry shipped to East St. Louis, and now I have a telegram from the government which tells me there is 900 over and the order is for 1000. If you will look at my letter you will see that I ordered only 100 so now there is 900 extra and furthermore who is going to pay the freight on

LARGE STOCKS OF HIGHEST QUALITY

We will appreciate your WANT LISTS

APPLE — Sour **CHERRY** — Hartlett Klefer **PEAR**

Hardy Hybrid PLUMS

Perfection Currants

PRIVET — Amoor North — Ibota — Ibolium

Deciduous TREES and SHRUBS

Choice varieties of

ROSES — VINES — PERENNIALS

*Ask for our latest Bulletins showing
grade counts and attractive prices*

MOUNT ARBOR NURSERIES

E. S. Welch, Pres.

Est. 1875

Shenandoah, Iowa

"One of America's Foremost Nurseries"

WHOLESALE PRICE LIST OF LINING-OUT STOCK — Spring 1939

LINING-OUT STOCK SEEDLINGS

| | per 100 | per 1000 |
|--|---------|----------|
| Abies Veitchii, 3 to 6 ins. | \$2.50 | \$20.00 |
| Abies holophylla, 6 to 8 ins. | 3.50 | 30.00 |
| Acer palmatum, 1-yr., 4 to 6 ins. | 2.00 | 15.00 |
| Berberis Thunbergii, 1-yr., 6 to 8 ins. | 1.00 | 8.00 |
| Berberis Thunbergii atropurpurea, 1-yr., 4 to 6 ins. | 2.50 | 20.00 |
| Cydosis Japonica, 1-yr., 4 to 6 ins. | 2.50 | 20.00 |
| Fagus americana, 1-yr., 4 to 6 ins. | 2.50 | 20.00 |
| Ginkgo biloba, 4 to 6 ins. | 3.00 | 25.00 |
| Juniperus virginiana, 1-yr., 3 to 6 ins. | 3.00 | 25.00 |
| Juniperus virginiana, 2-yr., 8 to 12 ins. | 5.00 | 40.00 |
| Laburnum vulgare, 6 to 8 ins. | 2.50 | 20.00 |
| Pinus Mugus, 2 to 4 ins. | 2.50 | 20.00 |
| Pinus nigra (austriaca), 4 to 6 ins. | 2.50 | 20.00 |
| Pinus Strobus, 3 to 6 ins. | 2.50 | 20.00 |
| Pseudotsuga Douglasii, 4 to 6 ins. | 2.00 | 15.00 |
| Syringa vulgaris, 12 to 18 ins. | 2.50 | 20.00 |
| Thuja occidentalis, 2 to 4 ins. | 2.00 | 15.00 |
| Thuja occidentalis, 10 to 15 ins., transpl. | 10.00 | 75.00 |
| Thuja orientalis, 1-yr., 3 to 6 ins. | 1.50 | 10.00 |
| Thuja orientalis, 2-yr., 6 to 8 ins. | 2.00 | 15.00 |
| Thuja orientalis, 12 to 18 ins., transpl. | 5.00 | 40.00 |

CUTTINGS

Well established plants from 2 1/4-inch pots

| | per 10 | per 100 |
|--------------------------------------|--------|---------|
| Juniperus depressa plumosa | \$1.10 | \$10.00 |
| Juniperus suecica | 1.10 | 10.00 |
| Juniperus horizontalis Bar Harbor | 1.10 | 10.00 |
| Ilex crenata rotundifolia | 1.10 | 10.00 |
| Refinispora squamosa aurea Gold Dust | 1.10 | 10.00 |
| Refinispora squamosa nana | 1.10 | 10.00 |
| Taxus cuspidata | 1.10 | 10.00 |
| Taxus cuspidata capitata | 1.10 | 10.00 |
| Taxus media | 1.10 | 10.00 |
| Taxus media Hicksii | 1.10 | 10.00 |
| Taxus Hannewelliana | 1.10 | 10.00 |
| Taxus repandens | 1.10 | 10.00 |
| Thuja occ. globosa | 1.10 | 10.00 |
| Thuja occ. pyramidalis | 1.10 | 10.00 |
| Thuja occ. recurva nana | 1.10 | 10.00 |

TERMS: Prices in this list are net cash, but the usual terms will be extended to those of established credit. No goods sent C.O.D. unless 25 per cent of amount is sent with order. Five of one kind will be billed at the 10 rate, 25 at the 100 rate, 250 at the 1000 rate.

GRAFTED STOCK from 2 1/4-inch pots ready for delivery about May 1, 1939

| | per 10 | per 100 |
|---|--------|---------|
| Acer palmatum Ashl-Beni | \$3.50 | \$30.00 |
| Acer palmatum atropurpureum novum | 3.00 | 25.00 |
| Acer dissectum atropurpureum | 3.00 | 25.00 |
| Cedrus atlantica glauca | 4.00 | 35.00 |
| Chamaecyparis obtusa gracilis nana compacta | 3.00 | 25.00 |
| Cornus florida alba plena | 3.50 | 30.00 |
| Cornus florida pendula | 4.00 | 35.00 |
| Cornus florida rubra | 3.00 | 25.00 |
| Cornus florida Weichii | 3.00 | 25.00 |
| Fagus sylvatica pendula | 3.00 | 25.00 |
| Fagus sylvatica Riversii | 3.00 | 25.00 |
| Fagus sylvatica tricolor | 3.75 | 35.00 |
| Ilex opaca femina | 2.75 | 25.00 |
| Ilex opaca Howardii | 2.75 | 25.00 |
| Juniperus columnaris glauca | 2.75 | 25.00 |
| Juniperus columnaris viridis | 2.75 | 25.00 |
| Juniperus chinensis neoboriensis | 2.75 | 25.00 |
| Juniperus chinensis Sargentii | 2.75 | 25.00 |
| Juniperus chinensis Sargentii glauca | 2.75 | 25.00 |
| Juniperus scopulorum glauca | 2.75 | 25.00 |
| Juniperus squamata | 2.75 | 25.00 |
| Juniperus squamata argentea variegata | 2.75 | 25.00 |
| Juniperus squamata Meyerii | 2.75 | 25.00 |
| Juniperus virginiana Burkilli | 2.75 | 25.00 |
| Juniperus virginiana Canadensis | 2.75 | 25.00 |
| Juniperus virginiana elegantissima | 2.75 | 25.00 |
| Juniperus virginiana glauca | 2.75 | 25.00 |
| Juniperus virginiana globosa | 2.75 | 25.00 |
| Juniperus virginiana Keteleeri | 2.75 | 25.00 |
| Juniperus virginiana Kosteri | 2.75 | 25.00 |
| Juniperus virginiana Schottii | 2.75 | 25.00 |
| Juniperus virginiana pendula | 2.75 | 25.00 |
| Juniperus virginiana pyramidiformis | 2.75 | 25.00 |
| Magnolia Alexandrina | 3.25 | 30.00 |
| Magnolia Halliana stellata | 3.25 | 30.00 |
| Magnolia Lenzii | 3.75 | 35.00 |
| Magnolia Soulangeana | 3.25 | 30.00 |
| Thuja occidentalis Douglasii spiralis | 2.25 | 20.00 |
| Thuja occidentalis elegantissima | 2.25 | 20.00 |
| Thuja occidentalis lutea Geo. Peabody | 2.25 | 20.00 |
| Thuja occidentalis lutea B. & A. Type | 2.25 | 20.00 |
| Thuja occidentalis nigra | 2.25 | 20.00 |
| Thuja occidentalis Rosenthalii | 2.25 | 20.00 |
| Thuja occidentalis Wareana (sibirica) | 2.25 | 20.00 |
| Thuja orientalis aurea nana | 2.00 | 18.00 |
| Thuja orientalis conspicua | 2.00 | 18.00 |
| Thuja orientalis elegantissima | 2.00 | 18.00 |
| Tsuga canadensis Sargentii | 2.75 | 25.00 |

HESS' NURSERIES, Mountain View, New Jersey

all that extra stuff. It is sure a fine mess. The stuff is all out in growth and it couldn't be shipped back but I will help you out all I can. I will offer you 2c each on that 900 and take them off your hands. I will try to get somebody in East St. Louis to take them. Leave me know at once. Yours truly, John Bushbottom.

Emil only laughed. "That's once we got it on old John," he says. "I remember that letter said 1000 all right so we have got it on him. We will send him a telegram, collect too, and tell old John he can go plum to hell and for him to come thru with the check in full for them barberries."

So we went into the office to get the letter and send the telegram. First we looked in that basket. But the letter wasn't there. Then we looked in that top drawer in Emils desk where he keeps all the bills and it wasn't there either. We looked everywhere. Even in Emils hunting coat and his best suit pockets. It had just disappeared. Looks kind of funny, dont it Mr. White? Well I guess so!

"There aint no use to get bull headed," I says to Emil. "If we cant find the letter we are stuck." I says, "We will be out the freight back, and the barberries and everything, as they wont be any good if we ship them back from East St. Louis in the middle

of May. We better take his offer," I says, "and get even with old John some other way."

So we sent him a letter accepting his offer. Old John paid the bill right prompt and that was the end of it so far as Old John figgered it. But not me and Emil. We had our suspicions, Mr. White.

Now understand Mr. White, all we got is suspicions. But that aint the end of it. There is a nurseryman which Emil knows that goes to Springfield every time they open the bids and he knows who gets the orders and how much they furnish and what they bid and all. So we had him look up the next time he was in Springfield, about that order for barberry to East St. Louis. There was a thousand barberry on that order all right and it all went to old John Bushbottom. He bid the lot at 7c which was way under what the other boys was asking.

Now I aint saying he did it this way Mr. White, but he could have figgered the barberry like this:

| | |
|---------------------|-------|
| 100 barberry at 15c | 15.00 |
| 900 " " at 2c | 18.00 |
| freight | 6.00 |

total 39.00

John got 70.00 and paid us 39.00.

FRENCH LILACS (All Own Root Stock)

Nurserymen and Landscape Men looking for good French Lilacs in varieties not always found in the regular lists and also wishing larger sizes than those generally carried should send for our wholesale list covering

45 Varieties BRAND PEONY FARMS Faribault, Minn.

It could be figgered that way Mr. White.

Now I know old John would raise a rumpus if you was to bring that up before the committee. But when you look back over it, it all fits together like a well worked out plan of Johns. First there was the letter which was missing and then old John buying the beer and the hamburger. And then what we found out at Springfield. When you put it all together it dont

look so good for old John. Dont you think so Mr. White?

So there you have it why we are surprised that Old John is giving me and Emil for reference. It just shows how the old devil has certainly got a lot of nerve.

Me and Emil thot a lot about that deal and tried to work out a scheme to get even. We was going to put Old John behind the 8 ball. I am going to lay the cards on the table Mr. White so you can see how smart Old John is. But dont say nothing Mr. White. Dont forget I have got quite a pull with the committee, and if you double cross me, dont be surprised if you get let out of the Wash. D. C. fund job. So keep your mouth shut Mr. White and keep it under your hat what I am going to tell you. Here is the plan we worked out for Old John.

We was going to go to work and make out to Old John that we was his pals. We figgered to even buy him a few beers at the convention and make out there wasnt nothing but the best of feelings between me and Emil and Mr. John Bushbottom. We was even going to apologize for making a mistake about the barberry, that spring. I think that is one place where we slipped up. I think Old John smelled a rat there, but he didnt say nothing at the time, of course.

Dont worry, Mr. White, me and Emil handled everything so that old John would not have the slightest suspicion that we was out to get him.

Emil thought it was a mighty clever idea and we laughed to ourself many a time during the next few weeks when we thought of the big surprise old John would get when he begun to suspicion there was a nigger in the wood box.

Now here is the plan we worked out. You know old John always comes around the convention with a order book and his price list and worries everybody all during the convention to give him a order. We went to work and give old John a order for a lot of fancy stuff. The real scarce and high priced stuff it was too. We told him to ship it by freight to Riverbend in the spring. There it rested till spring.

We was going to take the boxes and empty out all the fancy stuff and hide it out in the hog house at the end of the nursery and then fill up the boxes with a lot of old Honeysuckle

or some junk that wasnt worth nothing.

We figgered to send old John a telegram and tell him there was a big mistake and old John would have to come and take his junk back and furthermore he could cancel the order as we had bought someplace else.

We knew that would bring old John hot footing it to Riverbend and then we would show him the boxes with all the stuff in it and we would have him. Dont that sound good Mr. White? It sounded good to me and Emil too while we was working it all out. But that aint the way it worked out.

When spring come we sent a postal card to old John to send the boxes right away by freight. We didnt hear nothing for several days and then one day in come old John with a truck.

"I brought your stuff along," he says, "as I had to pick up a load at the F. and M. Nursery. Just check off the stuff as I unload it so there wont be any mistake," he said.

You could have fried a egg on Emils neck. He was so mad, he couldnt hardly speak civil to old John.

"This here is \$187.60 C O D. You know you aint paid me that bill from last spring yet Emil," Old John says.

Well there wasnt nothing to do but pay it, Mr. White. We was stuck and the whole deal fell right back into our face.

After Old John was gone Emil tried to put the razberry on me for getting him into such a deal. But it was his own idea. I only suggested the idea we should get even with old John and the idea was mostly Emils altho I did maybe put the thing in Emils mind.

That was a couple of years ago, but whenever I see Emil sitting and thinking without doing nothing, I know

what is going on in his mind. He is working on a idea to get Even with old John.

So now you can see Mr. White why we are agin old John for a member of the convention. He aint fit to be one, I say.

We have got to keep up the ethics of our profession, Mr. White. Me and Emil has said many a time in the nursery business you have got to keep your wits about you and dont tempt any nurseryman to take advantage of you.

HARDWOOD CUTTINGS.

In the rooting of hardwood cuttings it has been the practice of nurserymen to use shoots or canes of last season's growth and make each cutting from seven to eight inches long. Root development takes place near the adventitious buds and with hardwood cuttings depends particularly on the presence of stored food materials within the shoot. Often little attention is given to the minimum number of buds each cutting should have and to the portion of the cane that has abundant stored materials which favor rooting.

In making cuttings, according to K. D. Brase, writing in New York nursery notes, one should remember that the distance between the buds varies with the different species from which cuttings are taken. In some cases there would be only two or three buds on a 7-inch or 8-inch cane, while on cuttings of privet, for instance, there may be numerous buds. The number of buds and the distance between them are the big factors in successful rooting of cuttings. These eliminate the feasibility of a standard length of seven to eight inches,

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We offer a very COMPLETE ASSORTMENT of GENERAL

NURSERY STOCK of the HIGHEST QUALITY

Write for Spring Price List with grade counts.

Send us your WANT LIST for quotations.

LAKE'S SHENANDOAH NURSERIES

Shenandoah, Iowa

as is the common practice. Canes must vary in length according to the various species from which they are taken.

In determining what portion of the cane has the most abundant stored food materials, it is well to remember that one-year shoots of such shrubs as forsythia, deutzia and symphoricarpos have the greatest distance between the buds near the basal end of the shoot, especially when the cuttings are taken from crowded growth.

It has been shown by tests that the median portion of a shoot has an abundant supply of food stored and will give better results than cuttings made from the basal portion. Cuttings made from the tips are, in most instances, rather soft and are to be avoided entirely.

Another factor that is to be considered is the soil in which the cuttings are being rooted, as well as the soil moisture condition at planting time. Hardwood cuttings, in order to obtain best results, should be planted as early as possible before any swelling of the buds is noticed. It must be remembered that the most roots form where the oxygen is most abundant, and if planting is done in a heavy soil it is to good advantage to use well moistened peat moss in the planting trench. The use of moss will facilitate aëration and conserve all possible moisture.

NEW GRAPE VARIETIES.

The spring catalogue of the New York State Fruit Testing Association lists twenty new varieties of grapes believed worthy of trial by fruit growers. The selection of these new varieties was made by experts at the New York agricultural experiment station, Geneva, where the new varieties originated.

More than 30,000 seedlings have been fruited in the station vineyards, but most of them have not proved worthy of further propagation. Although the experts actually selected twenty-five varieties, planting stock for only the twenty varieties listed is available. Of the twenty varieties selected five are green or yellow sorts, nine are red and six are black or reddish black.

Ontario and Portland are early green grapes and Seneca, a yellow grape, ripens about the same time.



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MIDWEST HEADQUARTERS FOR COMPLETE NURSERY SUPPLY

Fruit Trees
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Small Fruits
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FINEST LANDSCAPE STOCK

Ready for this winter's planting, covering all of the best shrubs and plants for the south. Also a half million of lining-out CAMELLIAS, AZALEAS and GENERAL NURSERY STOCK now ready.

Write for Price List

E. A. McILHENNY

Specialist in CAMELLIAS, AZALEAS, IRIS and HEMEROCALLIS
AVERY ISLAND, LA.

The Best in Native
Nursery-grown
Rhododendrons
Kalmia, Hemlocks
Azaleas and Pieris

Write for Spring Prices

LaBars' Rhododendron Nursery
STROUDSBURG, PA.

Brocton and Golden Muscat complete the list of yellow and green varieties, which are the results of crossing with European strains.

The red varieties include Dunkirk, Hanover, Hector, Keuka, Ruby, Urbana, Watkins, Yates and Bronx Seedless. Several of these are especially suited for table and wine use. Urbana is a late-keeping grape that will hold up in common storage without shriveling or decaying until March. Concord Seedless, Eden, Fredonia, Sheridan, Wayne and Westfield are the black and reddish black varieties. Fredonia is rated as the best early black grape and Sheridan the most promising of the late black varieties.

TAXUS
AZALEAS
RHODODENDRONS
ASK US ABOUT THEM
WYMAN'S
FRAMINGHAM NURSERIES
FRAMINGHAM MASSACHUSETTS

SPECIMEN LANDSCAPE MATERIAL

Large Sizes **Many Varieties**
Shade trees, up to 10-in. trunk diameter.
Evergreens, up to 20 ft. high. Flowering
trees, up to 16 ft. high. Flowering
shrubs, up to 12 ft. high. Broad-leaved
Evergreens.
Highest Quality Stock—Carefully Maintained.

Send in your list for estimate.

LEWIS NURSERIES, Inc.

Roslyn, L. I., N. Y.

THE partnership of W. O. Weber and F. C. Weber, which operated the Chappaqua Nurseries, Chappaqua, N. Y., has been dissolved. The nursery will continue operation under the direction of William O. Weber.

Central Plant Board Meets

State Regulatory Officials Approve Amending Plant Quarantine Law and Oppose Federal Control of State Nursery Inspection Tags

The fifteenth annual meeting of the Central Plant Board, made up of regulatory officials of states in the north central region, was held at the Hotel Lowry, St. Paul, Minn., March 21 and 22, following the program published in the preceding issue. Over 100 entomologists visited the Twin Cities for this meeting and for the conference of the northwest grasshopper control authorities, held March 24 at Green hall, the new forestry building at University Farm.

Of primary importance on the program were the bill before Congress amending the plant quarantine act and the proposed federal supervision of nursery inspection.

Lee A. Strong, chief of the federal bureau of entomology, was expected to be present to discuss the revision of the federal plant quarantine act, but was represented instead by several of his assistants. The proposed changes in the federal law met no opposition, as the consensus seemed to be that sufficient safeguards existed to protect the interests of those affected by the restrictions.

The proposals voiced at the December meeting of entomologists at Richmond, Va., and at the meeting of the National Plant Board at Washington, D. C., two months ago, were discussed by E. L. Chambers, Wisconsin, in a paper on "Nationally Controlled Interstate Shipment of Nursery Stock." He and Carl J. Drake, of Iowa, reported on the Washington meeting as representatives on the National Plant Board.

E. R. Sasscer, of the federal bureau of entomology, spoke on "Present Restrictions on the Introduction and Interstate Movement of Living Insects and Plant Pathogens."

John K. Andrews, president of the Minnesota State Nurserymen's Association, was the sole spokesman for the nurserymen's interests. He argued for simplified regulations and the removal, as far as possible, of what amounted to trade barriers between states. Nurserymen were strongly opposed to restrictions and red tape, he said, especially such as involved inspection which would hold up business during rush periods.

Opposition was evident to the proposals for federal control or supervision of nursery inspection and certification of plant shipments at present individually controlled by the separate states. It was objected that time was lacking to discuss the matter thoroughly and to weigh the effect of these plans. While it was felt that something may yet come from the idea, it was believed that progress would be slow, in order that thorough consideration might be had by the various plant boards.

Dr. E. Metcalf, of Illinois, complained of the numerous changes in the scientific names of insects, much as the trade finds fault with botanists for renaming plants. He urged that something be done to curb the exuberance of entomologists in this regard, but opinion seemed divided as to the advisability of action.

NEW JERSEY REGULATION.

The New Jersey state board of agriculture, determining that the red stele disease of strawberry plants constitutes a menace to the strawberry industry of New Jersey, has revised the statutes for the purpose of preventing the further introduction of the disease into the state. Shipments of all strawberry plants from outside the state into New Jersey are pro-

hibited except when they have been inspected by an inspector of the state of origin and found to be free from disease.

The New Jersey state department of agriculture reserves the right to return to the point of origin any strawberry plants received in the state that do not have a certificate of inspection attached.

PENNSYLVANIA LIST.

Pennsylvania's 865 licensed nurseries, representing over 11,000 acres of stock; 423 licensed nursery stock dealers, thirty-seven licensed collectors of native plant material and seven licensed strawberry plant growers are listed in a bulletin issued by the Pennsylvania department of agriculture.

The listing of the growers of strawberry stock is a new feature of the bulletin.

Only those nurseries and dealers handling evergreens, fruit trees, deciduous ornamentals, nut trees, perennials and roses are listed. Names of the firms, their addresses, kind of stock sold and acreages under cultivation are given.

WHILE YOU ARE THINKING ABOUT

mailing a circular or special list to move surplus stock in time, an advertisement in the

AMERICAN NURSERYMAN

would carry your offer to trade buyers quickly and at less cost—and you may be sure it will be seen and read.

One-cent postage would cost \$40.00 to reach our 4,000 readers.

But a full-page ad costs but \$60.00; one-half page, \$30.00; other spaces in proportion.

Note how others use this means to turn their stock into cash.

Now is the time for action! Forms for April 15 issue will close April 10.

THIS ISSUE SETS ANOTHER NEW HIGH RECORD IN ADVERTISING CARRIED!

LINING-OUT STOCK

| | Per 1000 |
|---|----------|
| Aralia Pentaphylla, 10 to 18 ins. | \$25.00 |
| Forsythia Suspensa, true, 10 to 15 ins. | 25.00 |
| Regel Privet, true, 8 to 12 ins. | 40.00 |
| Red-leaved Barberry, tr., 8 to 12 ins. | 35.00 |
| Rosa Wichuriana, alga, 12 to 24 ins. | 20.00 |
| Rosa Lucida, alga, 12 to 24 ins. | 20.00 |

Ask for complete list.

C. HOOGENDOORN Turner Road.
NEWPORT, R. I.

CAMELLIAS

Double Red, Pink and Variegated from 2 1/4-in. pots, \$10.00 per 100.

Large semisingle Red or White from 2 1/2-in. pots, 10 rate, 20c each.

Fancy variety list on request.

WELLS NURSERY

Section & Blodgett Streets
MOUNT VERNON, WASHINGTON

SHRUBS

| | 25 to 249 Each | 250 or more Each |
|-----------------------------|-------------------|---------------------|
| <i>Aronia Arbutifolia</i> | | |
| 18 to 24 ins. | \$0.17 | \$0.15 |
| 2 to 3 ft. | .27 | .25 |
| 3 to 4 ft. | .40 | .35 |
| <i>Calycanthus</i> | | |
| 2 to 3 ft. | .17 | .15 |
| 3 to 4 ft. | .25 | .20 |
| 4 to 5 ft. | .35 | .30 |
| <i>Caragana Arborescens</i> | | |
| 3 to 4 ft. | .17 | .15 |
| 4 to 5 ft. | .25 | .20 |
| 5 to 6 ft. | .35 | .30 |
| <i>Chionanthus</i> | | |
| 2 to 3 ft. | .20 | .17 |
| 3 to 4 ft. | .30 | .25 |
| 4 to 5 ft. | .40 | .35 |
| <i>Halesia Tetraptera</i> | | |
| 4 to 5 ft. | .45 | .40 |
| 5 to 6 ft. | .55 | .50 |
| <i>Ilex Verticillata</i> | | |
| 18 to 24 ins. | .17 | .15 |
| 2 to 3 ft. | .25 | .20 |
| <i>Lindera Benzoin</i> | | |
| 18 to 24 ins. | .15 | .... |
| <i>Rhamnus Cathartica</i> | | |
| 4 to 5 ft. | .30 | .25 |
| 5 to 6 ft. | .40 | .35 |
| <i>Syringa Vulgaris</i> | | |
| 2 to 3 ft. | .15 | .12 |
| 3 to 4 ft. | .20 | .16 |
| 4 to 5 ft. | .25 | .20 |
| <i>Viburnum Lentago</i> | | |
| 2 to 4 ft. | .45 | .40 |
| <i>Viburnum Pubescens</i> | | |
| 2 to 3 ft. | .30 | .25 |
| <i>Viburnum Tomentosum</i> | | |
| 2 to 3 ft. | .30 | .25 |
| 3 to 4 ft. | .40 | .35 |

Boxing or baling at cost. Terms: 3% cash; 2% 10 days; 30 days net.

PLANT BUYER'S SERVICE

Ralph R. Coe
Box 253, Palmsville, Ohio

LARGE SPECIMEN EVERGREEN TREES AND SHRUBS DECIDUOUS TREES AND SHRUBS

for immediate effect

TOWSON NURSERIES, INC.

TOWSON, MARYLAND
near Baltimore

Send for special list

TAXUS

Cuspidata Capitata

1½ to 10 feet.

Best available.

Carloads or truckloads only.

VISSER'S NURSERIES

Springfield Gardens, L. I., N. Y.

NANDINA DOMESTICA

1-year seedlings\$30.00 per 1000
2-year, from beds..... 80.00 per 1000

Cash with order.

DUNLAP NURSERIES

Knoxville, Tenn.

DUTCH ELM DISEASE.

W. L. Slate, director of the Connecticut experiment station, New Haven, warning that hurricane-damaged elm wood left in the open may result in serious increase and spread of the Dutch elm disease, has signed an order affecting four counties. The order states that after May 15, 1939, federal or state agents may remove or dispose of any elm wood infested with elm bark beetles found either on public or private property in zones of infection. At the same time the director appealed to citizens throughout the state to help in the campaign to dispose of elms that had been blown down. In this way the danger of the spread of the disease will be minimized.

Areas affected by the order include all of Fairfield county; Ansonia, Branford, Derby, East Haven, Guilford, Hamden, Madison, Milford, New Haven, North Branford, North Haven, Orange, Seymour, West Haven and Woodbridge in New Haven county; Chester, Clinton, Essex, Killingworth, Old Saybrook, Saybrook and Westbrook in Middlesex county, and East Lyme, Lyme, Old Lyme and Waterford in New London county.

The state of Connecticut in the past years has attempted to protect elms by keeping the number of bark beetles down, but this year, with the large amount of breeding material available, the increase will be enormous if measures are not taken before June. Bark must be removed from the fallen timber or the logs must be piled in a tightly closed cellar or shed so that no beetles can get at them, or escape from them. The beetles spend the winter under the bark of the wood, and the young emerge in early June. If the tree is diseased the young beetles will carry the infection to healthy trees.

In lower Fairfield county, the most heavily infected area, the Dutch elm disease control division of the United States Department of Agriculture is attempting to destroy as much fallen elm wood as possible. Cleaning-up operations are also being attempted in parts of Branford and North Branford, where the disease was discovered last summer. Piling and burning seems to be the cheapest and most efficient method of disposing of the large quantities of fallen wood.

SHADE TREES

| Ash, American White | Per 10 | Per 100 |
|--------------------------|---------|----------|
| 8 to 10 ft. | \$ 7.50 | \$ 65.00 |
| 10 to 12 ft. | 10.00 | 90.00 |
| 2 to 2½-in. caliper | 17.50 | 150.00 |

| Elm, American | | |
|--------------------------|-------|--------|
| 8 to 10 ft. | 5.00 | 45.00 |
| 10 to 12 ft. | 6.50 | 60.00 |
| 2 to 2½-in. caliper | 12.50 | 115.00 |

| Maple, Norway | | |
|--------------------------|-------|--------|
| 10 to 12 ft. | 10.00 | 90.00 |
| 1½ to 2-in. caliper | 12.50 | 115.00 |
| 2 to 2½-in. caliper | 17.50 | 165.00 |
| 2½ to 3-in. caliper | 22.50 | 215.00 |

| Maple, Schwedler | | |
|-------------------|-------|--------|
| 10 to 12 ft. | 15.00 | 135.00 |

| Maple, Silver | | |
|--------------------------|-------|-------|
| 10 to 12 ft. | 5.00 | 45.00 |
| 1½ to 2-in. caliper | 7.00 | 65.00 |
| 2 to 2½-in. caliper | 10.00 | 90.00 |

| Oak, Pin | | |
|--------------------------|-------|------|
| 1½ to 2-in. caliper | 16.50 | .... |
| 2 to 2½-in. caliper | 20.00 | .... |
| 2½ to 3-in. caliper | 32.50 | .... |

| Poplar, Carolina | | |
|-------------------|------|-------|
| 6 to 8 ft. | 3.50 | .... |
| 8 to 10 ft. | 5.00 | 45.00 |
| 10 to 12 ft. | 7.50 | .... |

| Poplar, Lombardy | | |
|-------------------|------|-------|
| 6 to 8 ft. | 2.00 | 18.00 |
| 8 to 10 ft. | 3.00 | 22.50 |
| 10 to 12 ft. | 4.50 | 35.00 |

| Willow, Weeping | | |
|-----------------|------|-------|
| 5 to 6 ft. | 4.50 | 40.00 |
| 6 to 8 ft. | 6.00 | 50.00 |

Write or wire for quotations on other sizes and quantities.

OUR NORWAY MAPLE are especially good and quoted unusually low. A good investment for lining out as well as for immediate landscape use.

WAYNESBORO NURSERIES, Inc.

Waynesboro, Virginia

| PINK DOGWOOD | Per 100 |
|-----------------------|----------|
| 4 to 6 ft., B.R. | \$220.00 |
| 6 to 8 ft., B.R. | 265.00 |

| TAXUS OVATA, rare upright yew; all field plants. | |
|---|--------|
| 4 to 6 ins., heavy | 20.00 |
| 6 to 8 ins., heavy | 35.00 |
| 8 to 10 ins., heavy | 45.00 |
| 10 to 12 ins., heavy | 45.00 |
| 12 to 15 ins., heavy | 55.00 |
| 15 to 18 ins., heavy | 100.00 |

| ABELIA EDWARD GOUCHER, rare new pink. | |
|--|-------|
| 2-in. pots | 35.00 |

| AZALEAS, CORAL BELLS, SNOW | |
|----------------------------|-------|
| 2-in. pots | 10.00 |

List ready.

KINGSVILLE NURSERIES, Inc.

Kingsville, Md.

QUALITY NURSERIES

Allenwood, Pa.

ALL KINDS hi-grade EVERGREENS

Let us quote on your needs

Very Special Prices on ABIES CONCOLOR

| | |
|-----------------|-----------------|
| 1 to 2 ft. | \$40.00 per 100 |
| 2 to 3 ft. | 70.00 per 100 |
| 3 to 4 ft. | 95.00 per 100 |

Illinois Wage-Hour Bill

Introduction of State Act to Restrict Hours and Wages Brings Prompt Opposition from Illinois Manufacturers' and Retailers' Organizations

A bill to extend provisions of the federal wages and hours law to hundreds of thousands of Illinois workers now exempt because they are not engaged in interstate commerce was introduced in the house of representatives at Springfield last week by William J. Lawler, Republican, and Andy O'Neill, Democrat, at the instigation of the state federation of labor.

According to the terms of the bill, a 44-hour week is established during the first year, at not more than eight hours per day; 42-hour the second year and 40-hour the third year and thereafter, or after November 1, 1941, with time and one-half for overtime.

Wages would be set at a minimum of 25 cents per hour for the first year, at 30 cents per hour from November 1, 1940, to October 31, 1946, and after that date at 40 cents per hour.

The bill covers "any individual employed by an employer, but shall not include any individual employed in a bona fide executive or professional capacity; in agriculture, and in domestic service in a private home."

Thus the restrictions on hours and wages would cover employees in retail flower shops, seed stores, wholesale houses, retail nursery and landscape firms. To what extent it applies to greenhouse operators and growers of nursery stock will depend upon the definition of agriculture.

The bill is now before the house judiciary committee.

Opposition to its passage has already been indicated by the Illinois Manufacturers' Association. James L. Donnelly, executive vice-president, asserted there are many reasons why such a bill is objectionable and he cited the following three as important:

"First, this type of legislation has been proposed in a majority of other states and defeated. If Illinois were to adopt such a program the employers and employees would be at a distinct disadvantage in competing with those in other states. There would be a loss of business and jobs in Illinois.

"Second, universal experience has indicated that political control of wages and hours is unsound and impractical. Workers eventually have got the worst of it in every instance. This has been true in Italy, Germany and Russia, where government control of wages and hours has been in vogue for years.

"Third, the United States Supreme Court has not yet passed on the validity of the federal act. It certainly would be unwise for this state to embark on the proposed course until this has been done."

STATE WAGE-HOUR BILLS.

State wage-hour bills have been killed in the legislatures of New York, Ohio and New Mexico, while adjournment has taken place in the following states without enactment of such legislation: Arizona, Arkansas, Idaho, Indiana, Montana, North Dakota, Oregon, South Dakota, Tennessee, Utah, Washington, West Virginia and Wyoming.

The following state legislatures have wage-hour bills in committee, as of March 15, according to R. P. White, executive secretary of the

American Association of Nurserymen: California, Colorado, Connecticut, Delaware, Kansas, Maine, Maryland, Massachusetts, Missouri, New Hampshire, New Jersey, New York, North Carolina, South Carolina and Wisconsin.

Such a bill was recently introduced in the Illinois legislature, but so far no bill has been introduced in the following states: Alabama, Georgia, Iowa, Michigan, Minnesota, Nebraska, Pennsylvania, Rhode Island, Vermont and Texas.

ARBORISTS' BILL.

A bill, sponsored by shade tree men and arborists, has been introduced in the California legislature which would set up a state arborists' board under the department of professional and vocational standards.

Assembly bill 238 advocates the establishment of a board of five members, whose function would be to hold regular examinations for all wishing to take them in order to become certified arborists. A successful grade in the examination would entitle the arborist to use the letters "C. A." in connection with his name. The law would not prevent anyone from engaging in arboriculture and applies only to those persons seeking to use the title "certified arborists."

Those applying for the examina-

BOBBINK & ATKINS

Nurserymen since 1898
Rutherford, New Jersey

Send for a copy of our
1939 Wholesale
Catalogue.

Use printed stationery, please.

EUROPEAN BEECH

Fagus Sylvatica

Heavy plants, well branched, full bodied and uniform. Excellent for hedges.

| | | |
|-----------------------|---------|----------|
| | Per 10 | Per 100 |
| 8 to 10 ft., B&B.... | \$50.00 | \$450.00 |
| 10 to 12 ft., B&B.... | 70.00 | 650.00 |

BAY STATE NURSERIES

Incorporated
North Abington, Mass.

LINING-OUT STOCK

Complete list of deciduous lining-out stock this year.

Place your order now for Spring shipment, and avoid disappointment when wanted.

THOMAS B. MEEHAN CO.

Dresher, Pa.

SHADE TREES

One to three inches

| | |
|---------|---------|
| Birch | Maples |
| Elms | Oaks |
| Lindens | Poplars |

Spaced and well grown

Write Us

JACKSON & PERKINS COMPANY

Newark, New York

SHRUBS

| Althaea, assorted colors | Per 10 | Per 100 |
|--------------------------------|--------|---------|
| 2 to 3 ft. | \$1.50 | \$12.00 |
| 3 to 4 ft. | 2.00 | 18.00 |
| Barberry Thunbergii | | |
| 12 to 15 ins. | 1.00 | 8.00 |
| 15 to 18 ins. | 1.25 | 11.00 |
| 18 to 24 ins. | 1.75 | 15.00 |
| 2 to 3 ft. | 2.50 | 20.00 |
| Buddiea | | |
| Ile de France, No. 1. | 2.25 | 20.00 |
| Hartwegi, No. 1. | 2.25 | 20.00 |
| Magnifica, No. 1. | 1.50 | 10.00 |
| Bush Honeysuckle | | |
| 2 to 3 ft. | 1.75 | 15.00 |
| 3 to 4 ft. | 2.50 | 20.00 |
| Crape Myrtle | | |
| 2 to 3 ft. | 3.50 | 30.00 |
| Flowering Peach | | |
| 4 to 6 ft. | 4.00 | .... |
| Forsythia | | |
| 2 to 3 ft. | 1.50 | 12.00 |
| 3 to 4 ft. | 2.00 | 18.00 |
| Flowering Quince | | |
| 18 to 24 ins. | 2.00 | 18.00 |
| Philadelphus coronarius | | |
| 2 to 3 ft. | 1.50 | 12.00 |
| 3 to 4 ft. | 2.00 | 18.00 |
| Pussy Willow | | |
| 2 to 3 ft. | 1.20 | 10.00 |
| 3 to 4 ft. | 1.50 | 12.00 |
| 4 to 6 ft. | 3.00 | 25.00 |
| Redbud | | |
| 2 to 3 ft. | 2.25 | 20.00 |
| 3 to 4 ft. | 3.00 | 25.00 |
| Spiraea Vanhouttei | | |
| 2 to 3 ft. | 1.20 | 10.00 |
| 3 to 4 ft. | 1.75 | 15.00 |
| Winterberry | | |
| 2 to 3 ft. | 5.00 | .... |

Write for quotations on other sizes, varieties and quantities.

Waynesboro Nurseries, Inc.
Waynesboro, Virginia

BROWN BROTHERS COMPANY

Continental Nurseries

Rochester, N. Y.

"Established 1885"

Growers of quality stock.

Write for trade list.

CANADIAN HEMLOCKS

3 to 4 ft., 4 to 5 ft., 5 to 6 ft.

Heavy specimen stock.

Also Yews and other Evergreens in variety. If you are looking for real fancy stock, you can find it here. Let us quote on your want list or call at any time and inspect the stock in the nursery. Price list gladly mailed to the wholesale trade.

LEGHORN'S EVERGREEN NURSERIES
Cromwell, Conn.

Jullana Barberry, rooted cuttings, \$10.00 per 100.

Pfitzer's Juniper and Taxus, rooted cuttings, \$7.00 per 100.

In paper pots add 3c each.

Will trade for salable size stock.

BARDONA NURSERY
Box 24, Bakerstown, Pa.

Koster Company, Inc.

Order lining-out Taxus now.

BREVIFOLIA, CAPITATA, CUSPIDATA and HICKSII

6 to 9 ins., 1-yr. tpl. \$80.00 per 1000

9 to 12 ins., 2-yr. tpl. 150.00 per 1000

Plant Taxus—"the best insurance you can buy."

BRIDGETON, N. J. Write for catalogue

PRINCETON NURSERIES

of PRINCETON, N. J.

SUPERIOR

Hardy Ornamentals

PRIVET and BERBERIS

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT

MILFORD DELAWARE

tion must be skilled in the science of tree care and engaged in the practice of arboriculture for compensation. An arborist is defined by the bill as one who diagnoses and recommends treatment of trees and supervises its execution. Four years of college training, primarily in forestry or arboriculture, are required, or the equivalent in actual professional experience in tree care. The applicant must also have been engaged in the practice of arboriculture for more than five years preceding his application.

A fee of \$15 for commercial arborists, a \$10 certificate fee and a \$10 renewal fee are provided in the bill. The fees for noncommercial arborists are set at \$2.50 for application and the same amount for the certificate, with a \$1 renewal fee.

R. R. COE STARTS SERVICE.

Ralph R. Coe, who represented the Storrs & Harrison Co., Painesville, O., for thirteen years and the Princeton Nurseries, Princeton, N. J., for two years, has opened an office at Painesville under the title of Plant Buyer's Service, P. O. Box 253.

In view of the number of growers in the Painesville area who have virtually no representation and the quantity of plant material available in nearby states, Mr. Coe believes that a worth-while organization can be maintained to serve trade buyers without the necessity of their taking the time and money for trips to select material in person. He has established his office with the idea of maintaining a conscientious and efficient service for the buyer, not only selecting material, but coaling orders, arranging carrier service and otherwise acting in behalf of the purchaser. Announcement of the opening of his office went out to the trade in Ohio and neighboring states the past week.

ISSUING the 1938-9 list of nurserymen to whom were issued inspection certificates, Frank N. Wallace, Indiana state entomologist, reports that the number of nurseries within the state continues to increase steadily. During the past five years there has been an annual increase in number of nurseries and amount of acreage in nursery stock of from five to ten per cent.

FRESH SEED

**Immediate Shipment
from New York**

Berberis thunbergii
atropurpurea, 1000 seeds, \$2.00

Per 1/4 lb. Per lb.

Abies arizonica \$2.00 \$7.25

Acer palmatum atropurpureum 3.00 10.00

Ampelopsis tricuspidata (veitchii)50 1.65

Azalea schlippenbachii, 1/4 oz., 95c

Berberis thunbergii, c.s.75 2.50

Berberis verruculosa, 1/2 oz., \$1.50

Cedrus deodara85 2.75

Celastrus scandens65 2.25

Celtis occidentalis, d.b.50 1.60

Chamaecyparis pisifera75 2.50

Cryptomeria japonica45 1.25

Cupressus arizonica90 3.25

Cupressus macrocarpa90 3.25

Exochorda grandiflora70 2.40

Fraxinus lanceolata25 .75

Ginkgo biloba25 .60

Gleditsia triacanthos25 .75

Gleditsia triacanthos inermis40 1.25

Juniperus scopulorum50 1.55

Laburnum alpinum50 1.50

Ligustrum amurense55 1.70

Mahonia aquifolium75 2.50

Picea excelsa40 1.25

Pinus cembra40 1.25

Pinus resinosa 1.95 7.00

Pinus rigida 1.10 3.75

Pinus strobus55 1.75

Pinus sylvestris40 1.25

Pinus virginiana 1.65 6.00

Rhododendron catawbiense, c.s., 80c40 1.10

Sassafras variifolium40 1.10

Sequoia gigantea 2.00 7.50

Swietenia mahogani 2.25 9.00

Thuja occidentalis 1.00 3.50

HERBST BROTHERS

92 Warren St.

New York, N. Y.

"A friendly, efficient sales service"

E. D. ROBINSON

SALES AGENT

38 So. Elm St. P. O. Box 285

WALLINGFORD, CONN.

Representing

Adams Nursery, Inc.

Bristol Nurseries, Inc.

Barnes Brothers Nursery Co., Inc.

North-Eastern Forestry Co., Inc.

A. N. Pierson, Inc.

A complete line of well grown, hardy plant material

BURR'S QUALITY SEEDLINGS

Barberry Thunbergii, **Barberry Red Leaf**, **Ibota Privet**, **Ampelopsis Veitchii**, **Dutchman's-pipe**.

At Bargain Prices.

C. R. BURR & COMPANY, INC.

Manchester, Conn.

Trade Meetings

NORTH JERSEY MEETING.

The March meeting of the North Jersey Metropolitan Nurserymen's Association was held March 9, at the office of R. E. Harmon, Essex county agricultural agent, Caldwell. Three newly married members of the association, who had just returned from their honeymoon trips, were welcomed back, Roy Blair, Nutley; O. B. Bergman, Paramus, and C. Marshall, Clifton.

The coöperative buying program, which was not finished at the February meeting, was completed. An order was placed with the Coöperative G. L. F. Exchange, Inc., Ithaca, N. Y., for a special formula fertilizer recommended by Dr. Sprague, of Rutgers University. An order for ground limestone was also placed. Some last-minute orders for tools and burlap were taken.

Some years ago a revolving fund was established by using profits from coöperative planting jobs of county and municipal buildings. From these funds the association buys and pays cash for all tools and supplies needed by the membership. The individual member is charged a small interest fee for the length of time he uses the funds expended for his particular need. This enables the smaller nurseries to enjoy the quantity price discounts plus the privilege of paying for their supplies at a later date. The members are able to obtain this money from the association at a much cheaper rate than they could borrow the same amount from a bank.

All entries in the contest conducted in Garden Craft were called in and turned over to the judges. The judges are R. Stone, Bergen county agricultural agent; R. E. Harmon, Essex county agricultural agent, and F. Faucetts, Passaic county agricultural agent. The contest was for the best letter explaining why roses, perennials, trees and shrubs make the best gifts for holidays, birthdays and anniversaries. A prize of \$25 in nursery stock will be awarded the writer of the winning letter.

Maarten Snel gave the final report of the Bergen county dinner to be held at the Swiss Chalet, March 28.

William Flavell gave his report on Garden Craft, and the various mem-

bers told how this paper had created new business for them. G. Grootendorst reported for the auditing committee. His report showed the association to be in a good financial condition. The attention of the members was called to the tremendous amount of work being done by H. Deverman, treasurer. A rousing vote of thanks was extended to both the committee and Mr. Deverman.

Officers for the ensuing year were reelected as follows: President, Charles Hess, Mountain View; secretary, W. Hallicy, Clifton, and treasurer, H. Deverman, Clifton. R. Blair and W. Flavell were elected to the executive committee for three years.

A meeting of the executive committee was set for March 25, at the home of Mr. Snel, Riveredge. The next meeting of the association will be held April 13, at Mr. Stone's office, Hackensack. William Hallicy, Sec'y.

TWIN CITY MEETING.

The March meeting of the Twin City Nurserymen's Association, at Minneapolis, Minn., March 15, was attended by one of the largest groups of the season.

Much business, new and unfinished, was taken care of. Perl E. Grant, Minneapolis, then showed

EVERGREENS

Per 100
Chinese Juniper, 18 to 24 ins., xxx. \$35.00
Pyramidal Arbor-vitae,
18 to 24 ins., xxx 35.00
American Arbor-vitae,
10 to 12 ins., xxx 10.00
Pfitzer's Juniper, 10 to 12 ins., xxx 30.00
Pfitzer's Juniper, 12 to 15 ins., xxx 50.00
Roots puddled. All stock dug fresh on receipt of order.

RIVERSIDE NURSERIES

Box 113
Thiensville, Wis.

BARBERRY BARGAINS

1-yr., 3 to 6 ins., \$4.00 per 1000; 5000 for \$15.00.
1-yr., 6 to 9 ins., \$5.00 per 1000; 5000 for \$20.00.
1-yr., 9 to 12 ins., \$10.00 per 1000; 5000 for \$45.00.
Following are strong transplanted, branched.
2-yr., 12 to 15 ins. \$30.00 per 1000
2-yr., 15 to 18 ins. 50.00 per 1000
2-yr., 18 to 24 ins. 70.00 per 1000
Cash with order. F.o.b. cars here.
Lots of other bargains. Send for list now.

ATLANTIC NURSERIES, INC.
Berlin, Maryland

moving pictures he took during a recent vacation. Italy, Egypt and many other countries were shown on the screen and described in a running commentary by Mr. Grant. One member expressed the feeling that the members had been round the world in about one hour, and this sentiment was conveyed in an expression of thanks from the chair.

CINCINNATI MEETING.

The March meeting of the Cincinnati Landscape Association was held at the new office building of the W. A. Natorp Co., Montgomery road, Kenwood, O. T. B. Medlyn, vice-president of the nursery, and Albert Block, superintendent, served as hosts and conducted a tour of inspection of the new office, after which the members were dinner guests of the company at the Mariemont Inn.

At the business meeting important correspondence was reviewed. It was voted to participate in the Cincinnati "Clean-up, Paint-up, Plant-up" campaign, March 27 to April 5. A com-

SHRUBBERY BARGAINS

Below we offer a list of ornamental shrubs which we have in surplus and are offering at very reasonable prices. This is all first-class stock of our own growing; all of it is 2-year stock that has been twice transplanted, well branched and heavily rooted.

Golden Elder, 24 to 36 ins. 9c
Forsythia Intermedia Spectabilis, 24 to 36 ins. 8c
Honeysuckle Red Tartarian, 24 to 36 ins. 8c
Lilac Rothomagensis, 24 to 36 ins. 10c
Privet Amoor River North, 24 to 36 ins., 5 to 6 br. 3c
Privet, Regal's (true), 18 to 24 ins. 10c
Spiraea Anthony Waterer, heavy, 12 to 15 ins. 8c
Spiraea Billardii Rosen, 18 to 24 ins. 6c
Spiraea Vanhouttei, 18 to 24 ins. 4c
Spiraea Sorbifolia, 18 to 24 ins. 10c
Rosa Hugonis, strong, 18 to 24 ins. 9c
Snowberry, 18 to 24 ins. 6c
Honeysuckle Sempervirens, 2-yr. No. 1 8c
Ivy Engelmannii, 2-yr. No. 1. 7c
Free boxing if cash accompanies order.

JUNG SEED CO.

Nursery Dept. Randolph, Wis.

BARGAINS! BARGAINS! BARGAINS! HEDGE STOCK

Barberry! Barberry! Barberry!
Privet! Privet! Privet!

Yew, Hemlocks or What?

We have it!

300 acres raring to go! Fine stock, nothing better! Wholesale quantities to dealers only. Special prices on carloads at nursery. It will pay to investigate!

GARDNER'S NURSERIES
Rocky Hill, Conn.

TAXUS

Taxus cuspidata, propagated from cuttings of the improved dark green strain. 15 to 18-inch size ideal for dwarf hedges.

| | Ea. per Ea. per | |
|------------------------------|-----------------|--------|
| | 100 | 1000 |
| 15 to 18 ins. heavy, from | | |
| beds, XX B&B | \$0.00 | \$0.55 |
| 18 to 24 ins. light | | |
| XXX B&B | 1.25 | 1.15 |
| 18 to 24 ins. heavy | | |
| XXX B&B | 1.50 | 1.35 |
| 2 to 2 1/2 ft. XXX B&B | 2.00 | 1.85 |

TAXUS HICKSII,
18 to 24 ins.65 .60

Juniperus Depressa Plumosa

Write for quotations.

We also have larger *Taxus*, including trimmed specimens up to 4 and 5 ft. high.

Taxus headquarters — over 100,000 plants.

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EVERGREENS



The largest stock of upright and spreading *Taxus*, *Junipers*, *Spruces*, *Retinisporas*, *Arbor-vitae* and *Broad-leaved Evergreens* to select from in the state. There is an evergreen for every purpose.

As well as the best grown deciduous and flowering trees, shrubs and roses. Write for our spring 1939 wholesale trade list.

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European Sycamore

R. C., 18 to 24 ins., \$20.00; 2 to 3 ft., \$25.00; 3 to 4 ft., \$30.00.

Wisconsin Willow

R. C., 3 to 4 ft., \$20.00; 4 to 5 ft., \$25.00; 5 to 6 ft., \$30.00.

Complete line of general nursery stock.

T. B. WEST & SON

Maple Bend Nurseries Perry, Ohio

| Lombardy Poplar | Per 100 | Per 1000 |
|---------------------------|---------|----------|
| 3,000 1 1/2-in. cal. | \$30.00 | \$250.00 |
| 700 1 1/2-in. cal. | 40.00 | 350.00 |

| Amor River North Privet | |
|-------------------------|-------|
| 4,000 2 to 3 ft. | 40.00 |
| 4,000 3 to 4 ft. | 50.00 |

| Morrowli Honeysuckle | |
|--------------------------|-------|
| 1,000 2 to 4 ft. | 18.00 |
| 1,000 2 to 3 ft. | 12.00 |
| 1,000 18 to 24 ins. | 9.00 |

| Concord Grapes | |
|--|-------|
| 25,000 2-year No. 1. | 3.00 |
| Packing at cost; 25 at 100 rate, 250 at 1000 rate. | 25.00 |

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Benton Harbor, Mich.

BARBERRY SEEDLINGS

1 and 2-year
Few thousand *Atropurpurea* left.
Most any quantity *Thunbergii*

COOK'S NURSERIES Geneva, O.

mittee was appointed to function for this purpose. A report on some state legislation was received, and further study on the activities of the American Association of Nurserymen in the landscape branch was reported. Memberships in a garden center and a local horticultural society were renewed. The general business outlook was reported as slightly improved, with the spring season about ten days early.

MICHIGAN COMMITTEES.

Arthur L. Watson, president of the Michigan Association of Nurserymen, has appointed the following committees for the ensuing year: Legislative—Benjamin J. Greening, Monroe, chairman; Robert Essig, Detroit; Eldon H. Burgess, Galesburg; relations—Alex. Hunziker, Niles, chairman; Ray Fox, Spring Lake; H. Motford, Benton Harbor; auditing—Eugene Heuser, Hartford, chairman; Walter M. Coon, Farmington; summer meeting—A. M. Grootendorst, chairman; H. Motford, H. Nagle and Ralph Emlong.

NEW PATENTS.

The following new plant patents were issued the past month, according to Rummler, Rummler & Woodworth, Chicago patent lawyers:

No. 318. *Kniphofia*, or *tritoma*. John James Grullemans, Mentor, O., assignor to Wayside Gardens Co., Mentor, O. A new and distinct variety of *kniphofia* plant, characterized by its hardness and its relatively early and profuse flowering habit of bearing spikes, having a substantial upper portion of coral-red flowers and the remaining portion of white flowers, which coral-red portion of the spike changes in part to white during the development of the spike until a trace of coral-red color remains at its tip.

No. 319. *Carnation*. Adolphe Frederick Jacob Baur, Indianapolis, Ind., assignor to Baur-Steinkamp & Co., Indianapolis, Ind. The new variety of *carnation* characterized particularly by its strong stems having unusually good length in the early part of the blooming season; its strong, nonsplitting calyx; its vigorous growth and disease resistance, and its abundant production of deep pink (rose color) flowers with distinctive bright sheen.

THE Syosset Nurseries, Inc., Syosset, N. Y., has placed the first of eight 50-foot elms to be planted along Fifth avenue by Rockefeller Center, Inc., New York. The tree, which was planted March 9, was from the estate of the late Edgar F. Price, Port Chester, according to Alexander Ritchie, president of the nursery.

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Grafted plants

50,000 out 2 1/2-in. pots

Grafted plants, 1-yr. field

Grafted plants, 2-yr. field

Cuttings, rooted, out of the bench

Cuttings, Bare roots, 1-yr. field

Cuttings, Bare roots, 2-yr. field

Ask for Special list

WANTED IN QUANTITY

Pinus Thunbergii, 4 to 5 ft., 5 to 6 ft., 6 to 8 ft.

Oriental Planes, from 2 to 3-in. cal.

A few 4 to 5-in. and larger.

Specimen Privet, 4 to 5 ft., 5 to 6 ft., 6 to 8 ft.

Prunus Maritima, 3 to 4 ft., 4 to 5 ft.

Rosa Rugosa and *Rosa Spinosissima*.

FOR SALE

Celastrus Scandens

Roses, Northern-grown

Lining-out stock

The new *Viburnum Burkwoodii*

Laburnum Vossii

Espaliers

Michigan Peat

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SPECIMEN EVERGREENS

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Specializing in
EVERGREEN SEEDLINGS
TRANSPLANTS AND APPLE TREES
Write for price list.

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North Muskegon, Mich.

ELMS FOR SALE

Will sell cheap

2000 American—1000 Chinese Elms

2 to 3-in. caliper, 12 ft. high

1000 choice Evergreens.

M. SCHIESSLE, PARK RIDGE, ILL.

12 miles northwest from Chicago loop.

Reviews of New Books

"YOUR GARDEN THIS WEEK."

Ben Blackburn, extension specialist in landscape gardening at the college of agriculture at Rutgers University, New Brunswick, N. J., is well known to the trade and gardening public alike for his magazine writings and his radio talks, as well as his lectures on garden problems.

His helpful comments have been put in permanent form in a book, "Your Garden This Week," illustrated with photographs by the author, recently issued by the Rutgers University Press, handsomely printed and bound in plain green cloth, for \$1. It contains 245 pages, 5x7½ inches, full of practical suggestions and concrete advice to home gardeners. A chapter is devoted to each month of the year, and the work of the month is divided into weeks, so that the amateur may know what work must be done at a given time and how to do it. The little volume should be of much value to the great body of ambitious but uninformed home gardeners who too often discover late in the season what they have left undone, to their sorrow and disappointment. The territory covered by the author in his suggestions runs approximately from Maryland through the north Atlantic states to southern New England.

BOOK ON WILD FLOWERS.

"A Book of Wild Flowers," by Margaret McKenny and illustrated by Edith F. Johnston, just published by the Macmillan Co., at \$2, would seem primarily to be a textbook for children. Explanation is made that the book is the realization of a hope long cherished by the author to make wild flowers familiar to children. In Edith Johnston she found a talented artist, whose flower paintings have already gained wide prominence, to share her enthusiasm and produce this book. She not only painted the pictures, but also made the lithograph plates for the illustrations.

The book is not intended as a complete wild flower guide, but merely a selection of some of the most widely distributed plants. Thirty-three are depicted in page-size lithograph illustrations in colors, with a few notes

in large type on the facing page. As an introduction of the commoner wild flowers to children, the book should be interesting, and as a piece of artistic printing it is extremely pleasing.

GARDENER'S LIBRARY.

The Gardener's Library is the title given to a new series of horticultural handbooks edited for the Massachusetts Horticultural Society by Edward I. Farrington, secretary of the society and editor of Horticulture. Each volume discusses some particular aspect of gardening activity. Four volumes have come to hand, published for the society by Hale, Cushman & Flint, octavo size, illustrated and bound in plain green cloth binding, at \$1 per copy.

"The Gardener's Almanac," by Mr. Farrington, lists in a series of paragraphs those things which should be done in each month of the year. Much of the material appeared originally in Horticulture, in the "Timely Work" department.

"The Vegetable Garden" is also by Mr. Farrington and previously was published as "The Back Yard Garden." It has been completely revised and contains new charts and illustrations.

"The Lawn, How to Make It and How to Maintain It," is by Charles W. Parker. This book is the outgrowth of a bulletin which was written for the Massachusetts Horticultural Society and widely distrib-

uted. It contains additional material and a number of illustrations.

"Rock Gardens and What to Grow in Them" is by James H. Vissland and others. Besides chapters on construction and planting, it contains a long list of books pertaining to rock gardens compiled by Elizabeth C. Hall, librarian of the New York Botanical Garden.

AMERICAN ROSE ANNUAL.

As the editor of the American Rose Annual points out, when a publication has appeared annually through twenty-four years, this can be regarded as definitely representing something. Dr. J. Horace McFarland has made this volume of 250 pages a compendium of the latest rose information gathered from all parts of the world and covering many phases of its culture. Most of the forty-nine articles refer to garden roses, and

HARDY LILIES

25 at 100 rate; 6 at doz. rate. Doz. 100

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| Auratum | | |
| 8 to 9 ins. circumference.. | \$1.70 | \$12.00 |
| Crocium (Irish Orange Lily) | | |
| Top size, 8 ins. and up.... | 2.50 | 18.00 |
| First size, 6 to 8 ins..... | 1.70 | 12.00 |
| Second size, 4 to 6 ins.... | 1.20 | 8.00 |
| Henryi (The Golden Speciosum) | | |
| 9 ins. and up cir..... | 2.20 | 15.00 |
| 8 to 9 ins. circumference.. | 1.70 | 12.00 |
| 7 to 8 ins. circumference.. | 1.30 | 9.00 |
| Philippinense Formosanum (The New Wonder Lily) | | |
| 4 to 5 ins. circumference.. | 1.70 | 12.00 |
| 3 to 4 ins. circumference.. | 1.30 | 9.00 |
| 2 to 3 ins. circumference.. | .90 | 6.00 |
| 1½ to 2 ins. circumference.. | .50 | 3.00 |
| Regale (Regal Lily) | | |
| 9 ins. and up..... | 2.20 | 15.00 |
| 8 to 9 ins. circumference.. | 1.70 | 12.00 |
| 7 to 8 ins. circumference.. | 1.30 | 9.00 |
| 6 to 7 ins. circumference.. | 1.00 | 7.00 |
| 5 to 6 ins. circumference.. | .75 | 5.00 |
| 4 to 5 ins. circumference.. | .50 | 3.00 |
| Speciosum Album, white | | |
| 8 to 9 ins. circumference.. | 2.20 | 18.00 |
| Speciosum Rubrum (Magnificum) | | |
| 8 to 9 ins. circumference.. | 1.70 | 12.00 |
| Tenuifolium (Coral Lily) | | |
| 2-year, No. 1, 3 to 4 ins. cir. | .75 | 5.00 |
| 2-year, No. 2, 2 to 3 ins. cir. | .50 | 3.00 |
| 1-year, No. 1, 1½ to 2 ins. cir. | .40 | 2.00 |
| Tenuifolium Golden Glenm (Golden Coral Lily), blooms in June | | |
| 2-year, No. 2, 2 to 3 ins. cir. | .75 | 5.00 |
| Tigrinum (Single Tiger Lily) | | |
| 7 to 8 ins. circumference.. | 1.00 | 6.00 |
| 6 to 7 ins. circumference.. | .75 | 5.00 |
| 5 to 6 ins. circumference.. | .60 | 4.00 |
| 4 to 5 ins. circumference.. | .45 | 3.00 |
| 3 to 4 ins. circumference.. | .30 | 2.00 |
| Tigrinum Flore-Pleno (Double Tiger Lily) | | |
| Second size, 4 to 6 ins. cir. | 1.00 | 7.00 |
| Umbellatum (Dauricum) | | |
| First size | 1.70 | 12.00 |

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Benton Harbor, Mich.

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Cornus florida rubra

| | |
|-----------------------|---------|
| | Per 100 |
| 6 to 12 ins..... | \$20.00 |
| 12 to 18 ins..... | 30.00 |
| 18 to 24 ins..... | 40.00 |
| 2 to 3 ft..... | 75.00 |
| Packed free for cash. | |

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Chase, Alabama

HARDY AZALEAS

Kaempferi, Ponchartrainei, Schlippenbachii, Macranthata, Vaseyi, Enkianthus Camp., Juniperus Rigida, Taxodium Dist., White Spruce, Norway Spruce, Austrian, Limber Pine, Spoolman Yew, 12 to 15-foot spread.

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We are headquarters for Hardy Perennial Phlox. Our Phlox are single plants transplanted, individually grown in wide nursery rows without artificial watering.

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Complete assortment of the best varieties of Evergreens.

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Nursery at Brown Deer, Wis.

GYPSOPHILA BRISTOL FAIRY

Well established grafted plants.

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|-----------------------------------|--------|---------|
| 2 1/2-in. rose pots..... | 100 | 1000 |
| 2-in. pots..... | \$3.00 | \$70.00 |
| Hodgeri, 2 1/2-in. rose pots..... | 7.00 | 60.00 |
| | 10.00 | |

Chas. L. Guenther, R.R.2, Piqua, Ohio

HERBS

Pot-grown plants; over a hundred varieties. Dried Herbs for flavoring and fragrance. Other plants of unusual character and with the charm of old-time gardens.

New Catalogue sent on receipt of 10 cents.
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Let us quote on your perennial needs.
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SPECIAL OFFER—CUSHION MUMS

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PINK CUSHION, \$2.50 per 100; \$25.00 per 1000
RED, WHITE, BRONZE, \$6.00 per 100
THE NEW YELLOW CUSHION, \$10.00 per 100
STRONG WELL ROOTED PLANTS READY NOW
WONDERLAND NURSERIES, Ellerson, Va.

PHLOXES

If interested, write for price list.
Can ship any time.

HENRY LE POIRE
R. 2 Zeeland, Mich.

Lining-out JAPANESE CHERRIES
In fine varieties from 3-in. pots
\$15.00 per 100

THE COTTAGE GARDENS
N. I. W. Krick
LANSING, MICHIGAN

nurserymen should find much of interest in the volume. Certainly the members of the society get their \$3 worth in receiving this volume alone, to say nothing of the other publications of the organization.

From the trade angle it may be mentioned that M. H. Horvath, noted Ohio hybridizer, writes about "Pioneering among the Roses." A. F. Watkins, one of the foremost Texas producers, gives requirements for "A Fair Standard for Field-grown Roses." E. S. Boerner, of Jackson & Perkins Co., writes of roses at the New York world's fair in "Roses on Parade." Dr. L. M. Massey reports on fungicides for roses.

Municipal rose gardens are given important space in an editorial survey. Comments on new roses in foreign countries are supplemented by brief descriptions of new roses of all the world and a list of introductions and patented roses of the past year.

For the thirteenth time appears the collection of members' comments under the title, "Proof of the Pudding," and the importance of this feature of the volume may be understood by noting that it covers seventy-eight pages this time.

SELLING YOURSELF.

On the first page of his latest book on salesmanship, "The Knack of Selling Yourself," James T. Mangin asserts that at school we were given knowledge and taught industry, in the expectation that those who knew the most and worked the hardest would have the utmost success. Those persons who only learned what they were taught in school may realize that something is lacking, and this instruction Mr. Mangin endeavors to give in his forceful book of 234 pages recently issued by the Dartnell Corporation.

In this school, he says, you are not seeking to be noble, saintly or perfect, but you are simply learning to sell yourself. The shy and unexpressive individual may get from this book what he needs to advance himself in business. If he is sincere and has the things that were taught in school, namely knowledge and industry, the book should be helpful. But if he hasn't those qualities, he hasn't anything to sell, and spellbinders and self-seekers probably are not any more admired by the author than by the reviewer. The book is priced at \$2.50.

Surplus Evergreens**Black Hills Spruce**

| | Per 100 | Per 1000 |
|---------------------------|---------|----------|
| Each | Each | Each |
| 2 to 3 ft., xxx, B&B..... | \$1.15 | \$1.00 |
| 3 to 4 ft., xxx, B&B..... | 1.40 | 1.25 |
| 4 to 5 ft., xxx, B&B..... | 1.65 | 1.50 |

Colorado Blue Spruce

| | | |
|---------------------------|------|------|
| 2 to 3 ft., xxx, B&B..... | 1.65 | 1.50 |
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| 4 to 5 ft., xxx, B&B..... | 2.65 | 2.50 |

Colorado Green Spruce

| | | |
|---------------------------|------|------|
| 2 to 3 ft., xxx, B&B..... | 1.15 | .90 |
| 3 to 4 ft., xxx, B&B..... | 1.40 | 1.25 |
| 4 to 5 ft., xxx, B&B..... | 1.65 | 1.50 |

Pyramidal Arbor-vitae

| | | |
|---------------------------|------|------|
| 2 to 3 ft., xxx, B&B..... | 1.00 | .90 |
| 3 to 4 ft., xxx, B&B..... | 1.25 | 1.00 |
| 4 to 5 ft., xxx, B&B..... | 1.50 | 1.35 |

Japanica Juniper

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|------------------------------|------|-----|
| 18 to 24 ins., xxx, B&B..... | 1.00 | .90 |
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Pfitzer's Juniper

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| 15 to 18 ins., xxx, B&B..... | 1.00 | .90 |
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| | | |
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| 15 to 18 ins., xxx, B&B..... | .90 | .75 |
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Choice, well branched, straight stems, with good root system.

| | | | |
|-----------------|-----|---------------------|--------|
| 6 to 8 ft..... | 35c | 1 1/4 to 1 1/2-in.. | 75c |
| 8 to 10 ft..... | 60c | 1 1/2 to 2-in.. | \$1.00 |

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Sta. F, Route 9, Milwaukee, Wis.

AMOUR RIVER NORTH PRIVET HEDGING

Extra fine, low branched, smooth, young. Per 1000

| | |
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| 18 to 24 ins., 4 br. and up..... | \$25.00 |
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6 to 15-in. liners, will grow into pretty

| | |
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| penies..... | 7.50 |
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Spiraea Froebel, 6 to 15-in. liners..... 12.50

Packing free. These low prices are based on cash with order or 25 per cent down with order, balance c.o.d.

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For Seventy-five Years
Growers of Quality Evergreens
Lining-out Stock a Specialty
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EVERGREEN NURSERY CO.
Established 1864 : STURGEON BAY, WIS.

Tyler Rose Fair Park

*East Texas Fairgrounds Being Transformed
into Park of Rose Gardens as W. P. A. Project*

Tyler's new Rose fair park, under construction at an estimated total cost of \$325,000, is the largest Works Progress Administration project of its type currently under way in Texas. Two hundred and fifteen workmen, including supervisors, are daily at their jobs, but it will be December, 1940, according to C. C. Bunnenberg, Tyler park superintendent, before the project can be completed. The 90-acre park is in the west section of Tyler. The site is now the east Texas fairgrounds.

Planted with thousands of roses, trees and shrubs, the park will include modernistic fair exhibit buildings, baseball diamonds, a cinder athletic track, courts for basketball and tennis, a greenhouse for roses, a wading pool, riding academy, bridge paths, an artificial creek and model rose gardens.

Typical French and Italian rose gardens are to be laid out, and plots will be assigned all garden clubs in the city so that club members may carry out their own rose planting or landscaping ideas.

Fair exhibit buildings will include a livestock, agriculture, women's home demonstration club and a women's building. There will also be smaller exhibit buildings, all to be used by the east Texas fair.

One of the most important units will be the experimental greenhouse. It is planned to cultivate the new variety of roses, studying each type closely. Experiments will be made, also, in new ideas of rose culture which might possibly improve or advance the rose-growing industry. This greenhouse is to be 60x130 feet.

One of the real beauty spots of the entire ninety acres will be the three-quarter-mile driveway, circling through the park from the Front street to the Houston street entrance. This driveway will be sixty feet wide, with a center parkway of twenty feet. Planted with all varieties of roses, the center of the driveway is expected to be colorful.

Northeast of the pavilion will be the Italian garden, and to the south will be the French garden. A test

field for new types of roses will be near these gardens. Only roses created in the Tyler area will be tested.

The original plans for the rose park called for an expenditure of \$181,000, but as the work got under way and additional facilities were found necessary, the plans were supplemented and an additional W. P. A. grant obtained.

The work started about December 1, 1938, and at least two years will be required to complete it. The park board, which will have control of the project, is composed of five members; they are Pete Cole, chairman; A. B. Cremer, Mrs. Oyer Hill, Mrs. J. T. Blackwell and J. J. Weiss.

TEXAS NOTES.

Texas nurserymen are deeply interested in senate bill No. 1, which will repeal the present 7,000-pound truckload limit. A balled nursery plant consists of about ninety per cent soil by weight, and if it is shipped any distance by regular freight rates the cost to the customer would be more than the purchase price of the plant. Balled plants at wholesale prices are approximately one cent a pound by weight, or \$20 a ton. If the railroads could make a rate similar to rates charged for other

commodities of like value, say coal, the customer buying plant materials could pay transportation charges without any complaints.

Building awards in Texas for February, 1939, were \$9,515,386, exceeding any February since 1929. Engineering awards were more than February, 1937, and February, 1938, combined. Building construction was up, also. Residential awards for February, 1939, were 606 projects at a cost of \$3,504,700. There are \$134,106,856 in P. W. A. jobs now pending in Texas. This should indicate another busy year for nurserymen and landscape men of Texas.

Walter T. McKay, assistant chief of the division of plant quarantine, Austin, Tex., stated that according to an agreement made with the Texas Association of Nurserymen last year, the association promised to replace peach trees, where necessary, in the work of eradication of old trees found infected with peach mosaic by the department. These trees were to be given the farmers without cost to reimburse them for the trees removed from their old diseased orchards. This made possible the removal of the old trees without having to go through

HARDY FOREST TREE Seedlings

Millions more trees will be planted this year. County, State and Federal Government are PUSHING for Tree Planting. Be prepared for BIG SALES. ORDER NOW! Here you are...

LOWEST PRICES BEST QUALITY

| Siberian Elm, One-Year | | Size | Per 100 Per 1000 |
|---|--|---------------|------------------|
| | | 6 to 12 ins. | \$2.50 |
| | | 12 to 18 ins. | \$0.45 3.75 |
| | | 18 to 24 ins. | .65 5.75 |
| | | 2 to 3 ft. | .95 8.50 |
| Siberian Elm, Two-Year Heavy | | 3 to 4 ft. | \$1.40 \$12.75 |
| | | 4 to 5 ft. | 2.50 18.75 |
| | | 5 to 6 ft. | 5.00 40.00 |
| Hackberry, Extra Heavy, Two-Year | | 18 to 24 ins. | \$1.25 \$10.00 |
| | | 2 to 3 ft. | 2.00 15.00 |
| Russian Olive | | 12 to 18 ins. | \$1.00 \$7.50 |
| | | 18 to 24 ins. | 1.30 10.50 |
| Caragana | | 12 to 18 ins. | \$0.65 \$5.75 |
| | | 18 to 24 ins. | 1.10 9.50 |
| Hansen Bush Cherry—The Biggest Seller for 1939. | | | |

Heavy Branched Seedlings
12 to 18 ins. \$1.20 \$9.50
18 to 24 ins. 1.50 12.75

Order Now For Quick Delivery

THE HOUSE OF GURNEY, Inc.
Yankton, South Dakota

POLYANTHA ROSES

2-year field-grown. Budded low on Rosa Multiflora Japonica. Guaranteed true to label. Packed in sphagnum moss. Special on Polyanthas.

Price Grade No. 1, 7c each
Price Grade No. 1½, 5c each
Price Grade No. 2, 4c each

Baby Doll, or Tip-Top
Baby Orleans
Baby Tausendschon
Challion Rose
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General assortment Hybrid Teas, Hybrid Perpetuals, Rugosas and Climbers. Write for list.

ROSEMONT NURSERIES

Box 839, Tyler, Texas

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Wholesale surplus list

offers many bargains.

Fruit Trees, Shrubs, Roses, Evergreens.

Special—100 NORWAY
MAPLE, 2½ to 3-in., \$250.00**Maloney Bros.****Nursery Co.**

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We specialize in

APPLE AND PEACH TREESStrawberry, Asparagus, Raspberry and
Blackberry plants.

Grapevines, 1 and 2-year.

OUR MANY YEARS' PRODUCTION
EXPERIENCE COMBINED WITH OUR
FAVORABLE LOCATION ENABLES
US TO OFFER STOCK THAT MUST
PLEASE AT PRICES YOU WILL AP-
PRECIATE.Submit your definite list for quota-
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THE CRESCO STRAWBERRY

"A superior Dunlap type"

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500 plants...\$6.50 5000 plants...\$15.00

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Our Specialties Are

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BLACKBERRIES, DEWBERRIES,
ASPARAGUS ROOTS, GRAPEVINES**

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Stevensville, Mich.

**CHIEF RASPBERRIES
RED LAKE CURRANT**

Hardy Fruit Tree Seedlings

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ANDREWS NURSERY CO.Fairbault
Minn.**GRAPEVINES,
PEACH AND SHADE TREES,
BLACKBERRIES,
SHRUBS, VINES.****WILLOWBEND NURSERY**
PERRY, OHIOcourt procedure. Mr. McKay also ad-
vises that Ramsey's Austin Nursery,
Austin, Tex., furnished and delivered
161 peach trees for this work.Mrs. R. B. Walley announces that
she will continue to operate the
Bruce Walley Nursery, 1024 Third
street, Corpus Christi, Tex.Mrs. Robert Lee Mosty, Center
Point, Tex., was called to Sheffield,
Ala., last month to the bedside of her
grandmother, who was critically ill.**SOUTHWESTERN NOTES.**Paul Pritchard, Ottawa, Kan., has
opened a seed and nursery store on
North Main street. Mr. Pritchard
has recovered from a recent serious
illness.Upon the petition of C. D. Wag-
oner, president of the Kansas Associa-
tion of Nurserymen, Governor Payne
Ratner proclaimed March 31 as
Arbor day in Kansas. In past years
Arbor day has been in April, too
late for best results in planting.John T. Roberts, president of
Roberts Nurseries, Inc., Englewood,
Colo., is in a hospital seriously ill
with typhoid fever.The Fort Scott Greenhouse, Fort
Scott, Kan., was awarded the con-
tract for landscaping the grounds of
the post office at Eureka, Kan.Merle Edwards has purchased the
greenhouse and nursery formerly
owned by F. W. O'Bannon, at Paonia,
Colo. He operates it under the name
of the Paonia Floral Co.The Sutton Nursery & Landscape
Co., Independence, Kan., was the
successful bidder on two roadside
improvement projects in Wyandotte
county, Kan. The jobs are on the
new superhighway known as Riedy
road, west of Kansas City, Kan. Bids
were opened March 27 on two road-
side improvement projects in Geary
county, Kan.C. L. Gill, formerly at Tulsa, Okla.,
is now at San Antonio, Tex.Mrs. Lee Hormel, Emporia, Kan.,
has taken over the stock of the Jour-
ney's End Home Gardens, at Safford-
ville, Kan.Jack Carlton reports that he has
bought the interest of Mrs. George
Kaupp in the Kaupp-Carlton Nurs-
ery, Nevada, Mo.A "live snow fence" is being tried
out by the state highway department
along a 10-mile east and west stretch
of U. S. highway 50 S in Coffey**WHOLESALE TRADE LIST
JUST ISSUED**Lower prices on Evergreens, Decidu-
ous Trees, Shrubbery, Berry Plants, Bar-
berry Thunbergii, green and red; Ever-
green Barberry, Glossy Privet, California
Privet, Lining-out Stock, 2-yr. Budded
Apple Trees, Peach Trees in quantity—
Hale Haven, South Haven, Elberta, etc.It would be to your interest to have
our new trade list which will be mailed
on request. For large quantities mail us
list for Special Letter Prices.**The Westminster Nurseries**

WESTMINSTER, MARYLAND

**BOYD NURSERY
COMPANY**

McMinnville, Tennessee

WHOLESALE GROWER

of

**Tree Seedlings and
Lining-Out Stock**

Write for Prices on Peach Pits

POPLAR TREES

(Twice Transplanted)

SIMON'S POPLAR

Each

Each

6 to 8 ft. 30c 1¼ to 1½-in. cal...50c

8 to 10 ft. 40c 1½ to 2-in. cal.....65c

BOLLEANA POPLAR

Each

Each

6 to 8 ft. 50c 1¼ to 1½-in. cal. \$0.85

8 to 10 ft. 65c 1½ to 2-in. cal..... 1.00

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Wholesale Growers ofGrapevines, Currants, Gooseberries,
Blackberries and Raspberries

Let us quote on your requirements

FOSTER NURSERY COMPANY, INC.

69 Orchard St.

Fredonia, N. Y.

STRAWBERRY PLANTSSpecial low prices on 10 leading varieties
of Northern-Grown Plants.General line of Small Fruit Plants,
Rhubarb and Asparagus Roots.

Ask for our Latest Price List

KRIEGER'S WHOLESALE NURSERY

Bridgman, Michigan

**AMOR RIVER NORTH
and CALIFORNIA PRIVET**General Nursery Stock, Roses, Apple and Pear
seedlings. Will exchange for liners. Write for New
Spring Price List.**EMPIRE NURSERY and ORCHARD**"One of the South's Foremost Nurseries"
Baileys, Alabama**FOREST PLANTING STOCK
TREES \$5.75 per 1000**
and up**CHRISTMAS TREE PLANTING STOCK
LINING-OUT STOCK**

Reduce Taxes on Idle Land.

Write for descriptive circular and prices

MUSSER FORESTS, INC., Indiana, Pa.

county, Kan. Trees and shrubs adapted to the climate are being used, including Chinese elm, American elm, catalpa, Russian olive, apricot, juniper, Austrian pine, bush honeysuckle, privet, spiraea and cotoneaster. They will be set out in three parallel rows about five feet apart, 150 feet north of the center of the highway, taking the place of the red slat and wire fences which have to be strung out each autumn. Property owners are furnishing the highway commission with 20-year leases on the necessary land. These "live snow fences" have been found successful in Minnesota, Wisconsin and Michigan. Not only do they break the force of the wind, causing drifts to form on one side of the highway instead of on the road itself, but they improve the appearance of roadside property, provide some protection from hot winds in summer, increase the retention of moisture and eventually will provide some wood supply.

John Weis, Andale, Kan., is developing a trade in nursery stock in connection with his florists' business.

CICADA IN ILLINOIS.

W. P. Flint, entomologist, Illinois natural history survey, warns nurserymen that the cicada, or locust, will be particularly abundant in northern Illinois during the summer of 1939. Mr. Flint says: "The summer of 1939 will bring back the heaviest brood of this pest in this section of the country, and the insect will be abundant in all of northern Illinois north of an approximate line drawn

between the cities of Paris and Rock Island, the infestation lapping over a little, but not much, into the surrounding states of Iowa, Wisconsin and Indiana."

The cicada causes injury to crops and nursery stock by splitting twigs from one to four inches for the purpose of depositing its eggs. These twigs may be so weakened that they will die or be broken off by strong winds. This pest will be active from the middle of May into June. It cannot be poisoned, but a contact spray will kill such insects as are actually hit by the spray.

AT THE FLOWER SHOWS.

[Concluded from page 13.]

Kraak's Nursery arranged a flagstone terrace, bordered by a planting of caladiums and hydrangeas and set off by a planting of flowering shrubs and evergreens at the back. The landscaping was done by William H. Kraak.

Abele Bros., New Orleans, La., presented flower beds in a garden setting. Planted as if for a lawn specimen was a small tung tree coming into flower and leaf.

New Orleans' latest subdivision, Lake Vista, facing Lake Pontchartrain, was reproduced by the board of levee commissioners. Houses made to scale were set on lots landscaped according to the same scale by Rene Casadaban, Richard Straughan, Fred J. Ziegler, James Straughan, Bill Kraak, C. W. Meibaum, W. G. Roquin, Herman Rinck, Cosmo Crusta & Son and C. L. Meibaum.

ROSES FOR SPRING SALES

Place your orders now for spring delivery to assure you of the varieties you want. Below is a partial list of our varieties:

| Red | Yellow | Pink |
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| Etoile de Hollande | Lady Hillingdon | Dame Edith Helen |
| Glowing Carmine | Mrs. E. P. Thom | Susan Louise |
| McGredy's Scarlet | Souv. de Claudius Pernet | Tri-Color |
| Orange | Ville de Paris | Betty Upchurch |
| Mev. G. A. Van Rossem | | Heinrich Wendland |
| Mme. Ed. Herriot | | President Hoover |
| | | Talisman |

We also have many others. Send for complete list with prices. We still have a complete line of Baby Roses for forcing and mass garden planting effects in No. 1 grade only.

Use business stationery, please.

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Wholesale Rose Growers

Scappoose, Oregon

TIE

cut flowers—rosebushes—shrubs—perennials—for store and individual trade or retail mail orders—small fruits—counted seedlings—young plants—and so forth.

EASIER — NEATER — TEN TIMES QUICKER

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MILWAUKEE, WISCONSIN

VERHALEN DORMANT ROSES

READY FOR YOU.

F.o.b. our newly built, electrically controlled nursery storage at Edwardsville, Illinois, near St. Louis, Mo. Overnight fast freight service to most central cities.

No. 1, 12c; No. 1½, 10c; No. 2, 7c.

Packing extra at cost.

Ami Quinaud, dark red,
Autumn, burnt-orange,
Betty Upchurch, two-tone pink,
Briarcliff, pink,
Caledonia, white,
Condesa de Sastago, flame,
Dainty Bess, single pink,
Dame Edith Helen, pink,
Duquesa de Penaranda, copper-apricot,
Edith Nellie Perkins, Sweet Pea pink,
Editor McFarland, red,
E. G. Hill, red,
Etoile de Hollande, red,
F. J. Ludding, red,
Federico Cassa, copper-pink,
Golden Dawn, yellow,
Golden Pernet, yellow,
Kaiserin Aug. Victoria, white,
Killarney, double white,
Lady Hillingdon, yellow,
Luxembourg, yellowish,
Margaret McGredy, flame,
McGredy's Scarlet, red,
Mrs. Chan, Bell, flesh radiance,
Mme. Edouard Herriot, flame,
Mrs. Lovell Swisher, pink,
Mrs. Pierre S. du Pont, yellow,
Mrs. Herbert Stevens, white,
Radiance, pink,
Red Radiance, red,
Rocher, coppery,
President Hoover, orange and pink,
Sœur Therese, yellow,
Souv. de Cl. Pernet, yellow,
Talisman, flame,
Willowmere, pink,

Frau Karl Druschki, white,
General Jacqueminot, pink,
Henry Navard, everblooming red,
Ulrich Brunner, red.

Austrian Copper, copper,
Golden Moss, buff-yellow,

HYBRID RUGOSAS.

Belle Poltevine, pink,
Hansa, red,
F. J. Grootendorst, red,
Pink Grootendorst, pink,
Rugosa Alba, single white,
Sarah Van Fleet, pink,
Dr. E. M. Mills, yellow,
Sir Thomas Lipton, white.

CLIMBERS.

American Pillar, single dark pink,
Cl. American Beauty, red,
Cl. Gruss an Teplitz, red,
Dorothy Perkins, pink,
Ecclesia, red Dorothy Perkins,
Glenn Dale, yellow,
La Reve, yellow,
Mme. Gregoire Staechelin
(Spanish Beauty), pink and orange,
Paul's Scarlet Climber, scarlet,
Primrose, yellow,
White Dorothy Perkins, white.

| PATENTED ROSES | WHOLESALE | RETAIL |
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| | 1 to 20 each | 20 over each |
| Black Knight, dark red | \$.50 | \$1.00 \$10.00 |
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| Gloriana, yellow | .50 | .40 1.00 10.00 |
| Louis Brinas, flame | .60 | .50 1.00 10.00 |
| Mme. Cochet-Cochet, copper-pink | .60 | .50 1.00 10.00 |
| Nellie E. Hillock, deep pink | .50 | .40 1.00 10.00 |
| Sterling, dark pink brilliant | .65 | .50 1.25 12.50 |
| Texas Centennial, red | .35 | .30 .60 6.00 |
| Hoover | | |

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Telegrams: Western Union.

Address orders to Scottsville, Texas.

Ask for quantity prices.

VERHALEN NURSERY CO.
Scottsville, Tex.



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Lining-out Stock
Balled Stock
Fine Pfitzer Juniper Cuttings
now ready.

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Evergreens
Propagators & Growers
141 S. E. 65th Avenue PORTLAND, ORE.
Remember the Convention, Portland, 1939

Portland Wholesale Nursery Co.

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To the Trade Only

A complete line of
Nursery Stock and
Nursery Supplies.

Catalogue sent on request.

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FAIRVIEW, OREGON
Wholesale Only

ROSES

Send us your list of wants

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees

Grown right and packed right

Combination carloads to eastern distrib-
uting points save you on freight.

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| *Mile-high grown. | 100 | 1000 |
| 6 to 12 ins., 1-yr. sdgs. | \$1.00 | \$7.50 |
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| Transplanted stock priced per 10 | 100 | |
| 3 to 4-ft. shrubs. | \$2.00 | \$15.00 |
| 4 to 5-ft. shrubs. | 3.00 | 22.00 |
| 5 to 6-ft. shrubs. | 4.00 | 32.00 |
| 3 to 6-ft. Russian Olive trees, while they last, same prices. | | |

Buddie la de France, new deep reddish purple.
2-yr. transplanted, No. 1, \$2.50 per 10.
Rosa rubrifolia, 18 to 24 ins., \$2.00 per 10. 2 to 3 ft., \$2.50 per 10.
Many other items you'll want are in our current list, sent on request.

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P. O. Box 363 Fort Collins, Colo.
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ORENCO NURSERY CO.

Orengo, Oregon
WHOLESALE GROWERS
Fruit, Shade, Flowering Ornamental
Trees, Fruit-tree Seedlings, Roses, Etc.
Very complete line of quality stock
Catalogue sent on request.

TREE-PLANTING PROGRAM.

The extension service of the Connecticut State College, Storrs, has designated April 8 as tree-planting day for every town in Connecticut. A planting program is being arranged by 4-H clubs, women's groups, the Grange, Boy Scouts, garden clubs and various other organizations.

It is hoped that, by planting trees and shrubs along town roads, on lawns and village greens and other places, the trees, shrubs and other plant materials destroyed by the hurricane of last September will in some measure be restored.

The extension service has issued a 4-page bulletin that gives suggestions as to how this plan might be successfully promoted. The circular recommends that committees be formed from the various clubs and civic organizations for the purpose of planting areas around schools, municipal buildings, roads and greens. These committees should also arrange for the securing of the plant materials, arrange for labor and make plans for securing money to carry out the program.

The bulletin also lists Connecticut nurseries which have indicated that they have a supply of trees available for planting. It gives planting instructions and a list of trees which are suitable for various locations as well as their particular growth habits.

INDIANA NOTES.

The lien bill, which passed the state senate by a vote of 42 to 2 and was finally passed by the house on the closing day of the session, was not signed by the governor, who is now vacationing in Florida.

Kenneth Randel, Indianapolis, Ind., is the proud father of a baby girl.

Mr. and Mrs. J. C. Bunch, of J. C. Bunch & Sons, Terre Haute, Ind., returned recently from a vacation trip through the south. Most of the time was spent in Florida.

Henry Burkhart, Indianapolis, has returned from California, where he has spent the past two months.

Louis Kuhlwillm, 59 years old, an employee of the Hillsdale Landscape Co., Indianapolis, Ind., was found dead March 6, near the parking lot of the nursery. Death was caused by a heart attack.

FRUIT and SHADE TREE SEEDLINGS

Oregon and Washington Grown
Apple, Pear, Mahaleb, Mazzard,
Myrobalan

Quince (rooted cuttings)

Chinese Elm Seedlings

Complete Line General Nursery Stock.

Chinese Elm, Transplanted Specimens.

Norway Maple, Lining-out Whips.

Send list of your wants for prices.

New catalogue now ready.

Combination carloads to eastern distributing points.

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Since 1878

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ILEX PERNYI

A slow-growing Holly from China, with small spiny leaves and bright berries.

6 to 8 ins., 2-yr., 3-in. pots.....25c

8 to 10 ins., 3-yr., 4-in. pots.....40c

10 to 12 ins., 3-yr., 4-in. pots.....45c

Catalogue mailed on request.

DOTY & DOERNER, Inc.

Route 6

Portland, Oregon

New Rose TEXAS CENTENNIAL

(Red Hoover)

Plant Patent No. 162

Ask for color illustration
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Also for our general list
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DIXIE ROSE NURSERY
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PACIFIC COAST NURSERY

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We have a surplus of Mazzard, Mahaleb,
Myrobalan, Quince, Pear and Apple seed-
lings in all grades. Samples upon re-
quest.

John Holmason, Prop.

Grade Count List
Field-Grown
ROSES
Write for Copy
HOWARD ROSE CO.
Hemet, California



WILLIS NURSERY Co.

Wholesale Nurserymen

Write for Catalogue

OTTAWA - - KANSAS

Nursery Spray Program

Discussion of Sprays and Dusts That Will Materially Reduce Losses Caused by Insects and Diseases Attacking Nursery Stock

With the approach of the spring months it is time to think of the various pests that one will have to fight in the nursery. As the weeks pass different pests become apparent, and different means and materials are needed to control each.

The following spray program, while not complete in any sense of the word, includes most of the commoner and more destructive pests that nurserymen have to fight each year. It is a program that not only applies to the nursery, but is one that landscapers and nurserymen may follow in providing care and maintenance for plantings of customers. Many of the sprays and dusts may be obtained ready prepared and packaged so that they may be stocked and recommended and sold to customers who are desirous of doing their own tree maintenance work. Small hand-operated spray equipment may also be stocked.

The first spray attack should begin in February and be carried out through March and April. This is known as the dormant period. Efforts should be directed against scale insects and aphid eggs. Also at this time the earliest cedar-apple rust infections will be noted on flowering apples. The recommended spray for these pests is lime-sulphur, used in proportions of eight gallons of lime-sulphur to 100 gallons of water. Miscible oils are also used, one part to fifteen parts of water. Another spray recommended for aphid eggs is nicotine sulphate, using three-fourths of a pint to 100 gallons of water with five pounds of soap added.

From about April 1 to April 15 is the delayed dormant stage, which is just after the buds have opened and all danger of further freezing weather is past. At this time it is advisable to use miscible oil or oil emulsion to combat scale insects, aphid and spider mites.

These already mentioned are only the preliminaries; the real battles are just about to start. The spring spraying program calls for many different types of sprays and dusts to fight as many different insects. As the season advances the types of invading insects

increase both in number and species. At this time the battle should be directed against cankerworms, which attack the elm, linden and oak. Their first appearance is noted about the time the leaves begin to push out of the pod, and they use the young foliage as food. Best control of these leaf destroyers is the use of lead arsenate. A recommended formula is four pounds of lead arsenate, eight pounds dry lime-sulphur, eight pounds hydrated lime and one pint forty per cent nicotine, mixed in 100 gallons of water. As the cankerworm completes its growth on the ground good control may be obtained by banding. However, this banding should be done in October and kept renewed through April.

The tent caterpillar, another insect that should be combated in the spring to prevent extensive damage, appears early in the season and is recognized by the conspicuous felted tents it constructs in the crotches of trees. It usually inhabits beech, birch, willow, poplar, elm, maple, barberry, oak and witch hazel. This insect will not present much of a problem if the trees are given an early spring spraying

of lead arsenate, using two pounds to fifty gallons of water.

The gypsy moth is also controlled more easily at this time. This moth, one of the best known of the introduced forest and shade tree insects, lays its eggs on the bark of badly infested trees and on stones and other hard objects, from which the larvae hatch from the last part of April to the middle of June. Their feeding period extends from the first part of May through the middle of June. The caterpillars feed upon a large variety of trees and shrubs, but they show a preference for birch, oak, willow and larch trees. Effective control can be obtained by searching for the egg masses before they hatch and painting them with coal tar creosote. The caterpillars when extremely numerous are hard to control and best results are obtained by using arsenate of lead, three pounds to 100 gallons of water. It is best applied with about one pint of raw fish oil added as a sticker. Application is made with a power sprayer.

GRASS SEED

Radway's
"For Better Lawns"
CENTRAL PARK
 Special Mixture of Choice Seeds
 5 lbs. \$1.10 25 lbs. \$5.50 100 lbs. \$21.00

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 BRAND FOR SUNNY PLACES
 5 lbs. \$1.65 25 lbs. \$8.25 100 lbs. \$32.00

GOLFGREEN
 For Shady Places and Perfect Turf
 5 lbs. \$2.55 25 lbs. \$12.75 100 lbs. \$50.00
 All Seed and Fertilizer Free of Fillers
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CHINESE ELM SEED

True, hardy North China strain, from local trees that have stood temperatures lower than 30 below zero.

Our seed is carefully selected from true-to-type trees, far distant from American Elm, and from trees that carry practically no blanks.

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Native flowering plants of
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CARLOAD LOTS

ELM, American, Moline and Vase, up to 4 ins. All transplants.
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 PEACH.

All of above items can be supplied in carload lots.

Send for list on many other items.

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| 1 lb. | \$1.50 per lb. |
| 10 lbs. | 1.25 per lb. |
| 25 lbs. | 1.15 per lb. |
| 100 lbs. | 1.00 per lb. |

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Natural Peach Seed

you will not be sorry. Reliable and Dependable. Write for prices on 1938 crop. 6000 to 7000 seeds to the bushel (50 lb.)

Fruit Trees, Shade Trees,
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Southern Nursery & Landscape Co.
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Select Recleaned

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| | 100 lbs. |
| Velvet Lawn Mixture..... | \$14.00 |
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PEACH PITS

Our Pits Compare Favorably
 With the Best

HOGANSVILLE NURSERIES
 HOGANSVILLE, GEORGIA

The white-pine weevil, which causes the dying of brown leaders in midsummer, although it attacks other pines and spruces as well, may be reduced effectively by spraying with lime-sulphur early in the spring. The lime-sulphur should be used at winter strength. The spruce gall aphid, another pest that should be controlled in the spring, attacks the young Norway spruce shoots. The development of this pest is completed in early spring and the female then deposits about 300 eggs on the pine shoots. These hatch and the young establish themselves in cracks at the bases of developing leaves. Spraying in early spring, before new growth starts, using a miscible oil or other contact insecticide, gives excellent results.

The pine bark aphid, another insect that is likely to reduce the vitality of infested white pines or balsams, can be readily controlled by spraying early in May. Using a high-pressure sprayer and a miscible oil, one gallon to fifty gallons of water, adding one-half pint nicotine for every fifty gallons, will usually produce good results.

Another pest that can be successfully combated in the spring is the larch case-bearer, which frequently causes a general yellowing or browning of the foliage in early spring. This is due to a brown, black-headed caterpillar, occurring in somewhat of a cigar-shaped case, approximately one-fourth inch long and constructed of portions of large needles. The case-bearer eats a small hole in the side of the leaf and then mines it to as great a distance as it can without entirely leaving its shelter. Spraying with a miscible oil or a lime-sulphur will kill the hibernating case-bearers, or applications of a poison such as lead arsenate, two pounds to fifty gallons of water, early in the spring will destroy the caterpillars.

An active jumping insect, the rose leaf hopper, occurs on rose leaves during warm weather, and is often mistaken for thrips. A general spotting of the foliage and a whitish cast are caused by these insects. The young, which are pale green, appear in early spring and attack the under-surface of the leaves. Although they may appear in large numbers they are easily controlled by spraying the underside of the leaves with a nicotine soap combination. A fine mist spray is best suited for this purpose.

Another enemy of the elm is the

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**TREE SURGEONS'
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 IMPLEMENTS**

**Spraying Equipment
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Insecticides

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tussock moth. Its damage can be avoided to a great extent by spring spraying with poisons, using lead arsenate with forty per cent nicotine sulphate.

This is also the time of the year to apply fungicides that will prevent the establishment of harmful fungi on the bark and leaves of trees. It is always best to apply fungicides before a rain. Although fungicides do not usually wash off to a great extent, they will weather and it is advisable to make general applications at intervals of ten to fourteen days.

Bordeaux, lime-sulphur, at summer strength, and sulphur dust or spray may be used on ornamental trees without any appreciable injury. A good lime-sulphur is easily obtained and it may be safely used in concentrations of one part to fifty parts of water. Care should be exercised in the handling of lime-sulphur, as it is corrosive to the skin and it will discolor painted structures.

A finely ground sulphur to be used as a dust can be obtained and is excellent to use on ornamentals. It may be obtained with a green coloring especially for this purpose. Sulphur may be used as a spray, although its discoloration of foliage makes it objectionable for this purpose. Sulphur dust is prepared for spraying by mixing sixteen pounds of dust with eight pounds of hydrated lime and one-half pound of calcium caseate and then slowly adding 100 gallons of water in the spray tank with the agitator running.

Bordeaux mixture is considered by many the most efficient of fungicides, and it may be obtained either as a ready-mixed powder, to which only water need be added, or a stock solution may be prepared. Prepared packages of the necessary ingredients, ground copper sulphate and hydrated lime, may be obtained on the market. Quantities sufficient for the immediate needs may be mixed by simply following the directions on the packages.

The early summer spray season usually lasts about ten days, from June 1 to June 10, and is directed against oyster-shell scale, willow leaf beetle, elm leaf beetle, bagworm, leaf spots, mildew, spruce gall aphid, white pine aphid, sawflies and spruce bud moth.

The willow leaf beetle, an insect that attacks poplars and willows, appears in late April or late May and

a second brood appears in early June. An early and thorough spraying with an arsenical poison, applied on the underside of the leaf, will tend to curb the damage to foliage. The elm leaf beetle, which feeds on the underside of the leaf, selects the tenderest portions, eating a small hole and then depositing a cluster of orange eggs. A good arsenical poison applied to the undersurface of the leaf is recommended. The bagworm, a destructive pest encountered from New York city south, is particularly fond of arborvitae and red cedar, although it will attack a considerable variety of trees and shrubs. It is oftener found on poplars, mulberry and elms. If the worms are too abundant for hand picking, as is often the case, an arsenical spray, two pounds lead arsenate to fifty gallons of water, if applied early in June will effect good control. Leaf spots cover a "multitude of sins"; they are nearly as many and varied as there are trees for them to infect. Treatment for these afflictions is not a control measure, but it is a preventive measure, as mentioned under spraying and dusting for fungi. Little or no benefit is derived from spraying once a large area is infected.

Powdery mildews are easily controlled by applying almost any toxic substance in liquid or dust form. It is a good practice to apply sulphur dust to infected trees in the summer. This will prevent the spread and further development of the infection.

Bordeaux mixture is often recommended for mildews, but it is not so effective as sulphur dust or spray.

If the spruce gall aphids have survived the control measures of the spring it is advisable to spray again from the middle to the latter part of August with any commercially recommended spray.

Sawflies, insects that infest larch, spruce and pines, are of so many different species that it is difficult to recommend control measures that will give good results with each different sawfly. However, recent research at Michigan State College, East Lansing, has shown that an arsenical spray using three pounds of lead arsenate, one quart summer oil and 100 gallons of water is effective where large acreages are infested. For best results it is recommended that the spray be applied with a power sprayer giving at least 200 to 300 pounds of pressure. For a small planting, where the infestation is localized to a few individual trees, dust applied with a hand duster is advocated. According to the research at Michigan State College, three dusts, cryolite, calcium arsenate and rotenone, were found to be effective. Both cryolite and calcium arsenate gave 100 per cent control.

The late summer spray program is important in that, if it is effectively carried out, it will kill off a good many insects just at a time when they are laying eggs or are preparing to winter under the bark of trees. Thus

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will be destroyed the foundations for the following year's insect brood.

This late summer spraying is directed against such pests as fall webworm, elm leaf beetle, second generation; rose slugs, aphids, leaf hoppers, leaf spots and mildew. This campaign usually starts about August 15 and lasts to September 1. Of the insects combated at this time the juniper webworm is probably the most destructive from the nurseryman's viewpoint. This insect injures junipers, principally in nurseries, by eating the leaves and webbing them together. The larvae, which live in large masses, have been known to settle on small plants in the nursery and completely defoliate them. An arsenical poison, applied with a high-pressure sprayer, directed against the webbed areas of the trees will materially decrease the infestation. This is also the time to control the second generation of the elm leaf beetle if the first spraying has not been effective or has been neglected. The same sort of treatment as previously mentioned is used at this time. Late summer sprays are also directed against mildews and leaf spots to kill any spores that may winter over on the infected trees. Any rose leaf hoppers that have survived the previous treatment can be removed at this time by repeating this treatment.

It is well to remember that no matter what spray is recommended it is only effective if properly applied. Proper spraying equipment and technique are as important as the right kind of insecticides or fungicides. Spray apparatus cannot be generally recommended. Equipment to fit individual needs must be used. It is obvious that the little neighborhood nursery of only a few acres would not have use for large power sprayers such as are used by the large-acreage nurseries. It must be remembered that, regardless of whether a small hand sprayer or a large power sprayer is used, the essential factor is to have uniform and economical distribution of the spray.

Where large blocks of trees or shrubs must be sprayed, of course, power sprayers are the most economical to use. Usually outfits that will furnish a pressure of 200 to 300 pounds or even more are used. These are particularly advantageous where heavy infestations of worms, moths and similar insects are or eggs have been laid. Often such a forceful

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of the A. A. S. scientists reported on the powder method as follows: "No cuttings were killed by overdosing with ROOTONE." "Cuttings tolerate dust much better than solution treatment." "Difficult species respond well to dust treatment."

IT WAS FURTHER RECOMMENDED that woody cuttings be moist or damp when dipped into powder so as to pick up more.

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spray will dislodge a greater portion of the insects or eggs. While it is best to use high pressure, it must be remembered that the spray must not be such that it will damage the foliage. If possible, the nozzle should be adjusted so that an even distribution of spray is ensured over the entire tree, shrub, vine or whatever is being treated. With the many types of spraying equipment offered it is not difficult to find one that will meet the particular needs of each individual situation.

Of course, most recommendations are that the spraying be done from the ground; particularly is this preferable in spraying for insects and diseases that attack the underside of the leaves.

As with all things, any spray program must be worked out to fit the needs of various localities and conditions encountered. It should also be remembered that conditions for spraying vary greatly from one season to another. A practice that is suitable for one season may have to be altered to some extent to be of value the next season. Expert knowledge of materials and the proper time to apply insecticides and fungicides is a prime requisite. This knowledge is necessary in order to reduce injury from spray materials to a minimum.

OBITUARY.

A. F. Bernard.

A. F. Bernard, of the Rosemont Nurseries, Painesville, O., died March 12 after a lingering illness. He would have been 78 years old in April. He was a grower of hardy roses for the retail trade for more than forty years. His business at the Rosemont Nurseries will be discontinued, for his son, Fred W., is conducting a perennial business at the An-Per-Se Nurseries.

Cyrus Milton Appleget.

Cyrus Milton Appleget, Yakima, Wash., was celebrating his eighty-third birthday anniversary March 17 at the time of his death. Mr. Appleget went to Yakima in 1896 and operated a nursery most of the time since. His establishment was the C. M. A. Nursery.

Joseph Meyers.

At the age of 64 years, Joseph Meyers, of Honeoye Falls, N. Y., died March 19, after a long illness. Mr.

Meyers had been engaged in the nursery business at Pittsford and Honeoye Falls for thirty years. Surviving is a sister, Mrs. Sophie Hayes, Rochester.

Gibson Scott.

Gibson Scott, head of the export department of the California Nursery Co., Niles, Cal., died February 28 at the age of 37 years. He had been connected with the nursery for the past five years and had directed plantings at the San Francisco fair.

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CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in the American Nurseryman.]

Oscar H. Will & Co., Bismarck, N. D.—An 80-page catalogue listing vegetable and flower seeds and nursery stock.

W. & T. Smith Co., Geneva, N. Y.—A 36-page price list of general nursery stock for 1939. Listing includes ornamental trees, fruit trees, small fruits, rose novelties and other stock.

Native Evergreens, Missoula, Mont.—A mimeographed, pocket-size price list of native alpine plants, trees, shrubs, ferns, bulbs and seeds.

F. & F. Nurseries, Springfield, N. J.—A pocket-size price list of 140 pages, listing general nursery stock. Also included is a chart telling approximate height of various materials, color, season of bloom and various lists of plants suitable for different situations.

E. D. Robinson, Wallingford, Conn.—A 72-page trade price list of stock from the various firms represented by this agent. Listed are evergreen trees, collected stock, hardy vines, fruit trees, perennials, ornamental shrubs and lining-out stock.

Koster Co., Inc., Bridgeton, N. J.—Pocket-size price list of nursery stock dated March 1, 1939. Listing includes both lining-out and specimen stock. Featured are rhododendrons and lilacs.

Clark Gardner Nurseries, Osage, Ia.—A 24-page booklet, well illustrated, listing general nursery stock.

A. M. Leonard & Son, Piqua, O.—A 96-page booklet listing tools for the nursery, garden, greenhouse, orchard and tree surgery.

Brainard Nursery & Seed Co., Thompsonville, Conn.—A 64-page, well illustrated catalogue listing flower and vegetable seeds, nursery stock and fertilizer for lawn and garden.

Steele's Nurseries, Palmyra, N. J.—A pocket-size price list of thirty-six pages offering evergreens, ornamentals, trees, shrubs and vines.

Hill Top Orchards & Nurseries, Hartford, Mich.—A 24-page catalogue, with cover illustrations in color, offering chrysanthemums, ameliumums, delphiniums, phloxes, carnations, small fruits and shrubs.

C. R. Burr & Co., Inc., Manchester, Conn.—A 24-page booklet as bulletin No. 1, for spring 1939, offering shrubs, perennials, roses, hedge plants, seedlings and lining-out stock.

Willis Nursery Co., Ottawa, Kan.—Wholesale price list for spring, dated March 1, lists shrubs, hedge plants, shade trees, evergreens, small fruits, fruit trees and many other items of general stock.

Shifferly Nursery, Orrville, O.—A printed sheet offering roses, fruit trees, shrubs and ornamental trees.

RECENT incorporations included the Swain Nelson Realty Co., 2320 Glenview road, Glenview, Ill., to deal in real property. The incorporators are H. S. Nelson, W. R. Arrington and J. M. Scott.

THE Clarence Prentice Nursery, Seattle, Wash., is busy moving its large stock of ornamental shrubbery to a new location nearer its Seattle marketing center, at the junction of Marginal and Airport ways.

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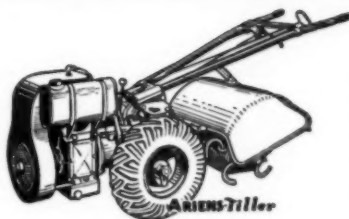
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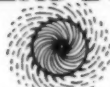
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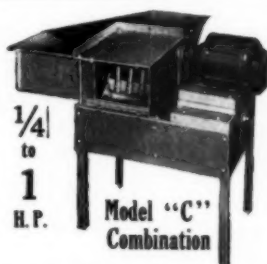
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